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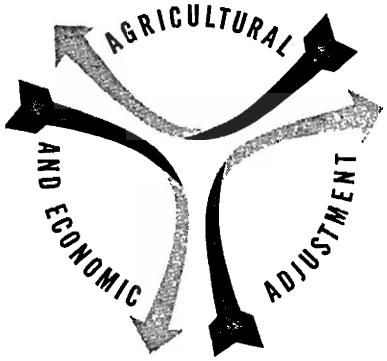


# Characteristics of Operator Entry Into Iowa Farming, 1959-60

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## SUMMARY


The study of operator entry in Iowa farming reported in this bulletin had two primary objectives: (1) to establish a benchmark for analyzing post-entry adjustments and financial progress of beginning farmers over time and (2) to provide descriptive information about the people who entered farm-

ing, the conditions under which they achieved entry and the financial results experienced during the initial year of operation. A series of follow-up studies of the same group is planned for future years.

Data for the current study were obtained by personal interview from a sample of farm operators who entered farming in 1959 and 1960. The sample of entrants was obtained from a state-wide sample survey involving nearly 7,000 farm operators. It was based on a self-weighting single-stage sample of area segments drawn at random from a universe defined as the open-country zone of Iowa by the current Master Sample materials.

Entrants were classified into two groups: beginning entrants and other entrants. The beginning-entrant group consisted of persons who had never farmed before the year of entry and persons who had farmed before the year of entry but had disposed of their farming assets with the apparent intent of permanent withdrawal. Other entrants consisted of persons who had farmed during an earlier period but had temporarily withdrawn from farming (retained their farming assets) with the apparent intent of re-entering.

Based on the sample, the estimated average number of entrants into Iowa farming during 1959 and 1960 was 2,837 ($\pm$403 at 0.95). The average number of beginning entrants was 2,522 ($\pm$366 at 0.95), and the average number of other entrants was 315 ($\pm$157 at 0.95). In the 1959 to 1960 period, the average rate of total operator entry was estimated to be 1.65 percent (percentage ratio of the number of entrants each year to the number of farm operators at the beginning of each year).

Beginning-operator entrants in Iowa were typically young men (median age 25 years) who were married and had lived on a farm the greater part of their lives. Most were high school graduates, two-thirds of the group having completed 12 years or more of school. Although only 5 percent had completed 4 years or more of college, the percentage with 12 years or more of education was significantly greater in the beginning-entrant group that in the population of Iowa males 16 to 59 years of age not enrolled in school. The selectivity with respect to education was associated with a higher proportion of younger people in the beginning-entrant group and the generally higher educational level of younger people. Beginning entrants were more likely to have had a general high school education than specific vocational agricultural training. Although two-thirds had completed high school, only 43 percent had taken vocational training for entry into farming.

The traditional concept of the agricultural ladder postulated that persons entering operatorship roles in farming typically were farm laborers before assuming entrepreneurial responsibilities. Whatever may have been the historical truth of this conception of entry, it is not a realistic description of prior employment of contemporary entrants into farming in Iowa. In the year preceding entry, about half of the beginning entrants were engaged primarily in nonfarm employment. Only 28 percent were working as farm laborers. Almost 10 percent were attending school, and about the same proportion were in military service. About 78 percent of the group had held full-time nonfarm jobs for more than 3 months after age 18.

A large proportion of the beginning entrants reported that they gave no thought to a career other than farming. When asked, "Before you decided to farm, did you give any thought to a nonfarm occupation as a career?", 38 percent said no. Negative responses were more frequent among younger entrants than among older entrants. Considerations relating to working and living conditions played a major role, whereas considerations involving income and job security played a minor role, in the decisions of beginning entrants to farm. Younger and older entrants appeared motivated by quite different considerations, with younger entrants giving more emphasis to working conditions and older entrants placing more attention on living conditions. A relatively large proportion of the older entrants continued to hold the same nonfarm jobs held prior to entering farming.

Financial position of entrants at the time of entry was measured by net worth on Jan. 1 of the first year of farming. The mean net worth on this date for all beginning entrants was about $9,000. The median net worth, however, was only $4,600, indicating a highly asymmetrical distribution. Nearly 37 percent of the group had a net worth of under $3,000. Over one-sixth had less than $1,500. On the other hand, 22 percent had a net worth of $10,500 or more, and 7 percent had $20,000 or more. There were large differences associated with age, with younger entrants having much smaller net worths than older entrants.

Although most of the entrants had very limited financial resources of their own, a comparatively small proportion entered farming under a partnership arrangement. About 82 percent entered farming as single proprietors, whereas only 18 percent entered under a partnership arrangement. Nearly all the partnerships were father-son or other family arrangements. Younger entrants were more likely to enter under a partnership arrangement than older entrants. There appeared to be no consistent relationship between beginning net worth and business form at time of entry.

Most beginning entrants rented the land they operated the first year of farming. Among single-proprietor entrants, younger entrants were renters more frequently than older entrants. And entrants with low beginning net worth were tenants more frequently than those with higher net worth. Beginning entrants farmed significantly smaller acreages than did the population of Iowa farmers. The mean land base

was 165 acres. Although partner entrants were associated with larger units than were single proprietor entrants, many of the partnership units supported two families. Older entrants operated smaller farms than did younger entrants. However, the acreage differences among age groups were largely a reflection of the acreage differences associated with tenure and the heavier concentration of ownership among older entrants.

The amount of nonfarm work performed by beginning entrants during the initial year of farming was substantial. Nearly one-fourth of the total time devoted to income-generating activities by the beginning-entrant group was spent at nonfarm jobs. The time spent at nonfarm employment varied directly with both farm size and age. Entrants on larger farms spent less time at nonfarm work than entrants on smaller units, and older entrants spent more time at nonfarm employment than younger entrants. It appeared that the causal relationship ran both ways. In some cases (particularly among older entrants), the amount of nonfarm work apparently determined farm size, whereas in other cases, farm size appeared to determine the amount of nonfarm work.

Beginning entrants frequently received family assistance in getting started in farming. About 68 percent of the group reported receiving family help (gifts and inheritances) during the initial year of farming. The mean value of family assistance for those receiving help was $1,672. Although inheritances were involved in less than 3 percent of the cases, they made up nearly 30 percent of the total value of family assistance. The proportion of entrants receiving gifts (excluding inheritances) and the amount received per entrant were greater for younger entrants than for older entrants. Although gift assistance took a variety of forms, most of it was oriented to the farm business. In general, gift assistance constituted a relatively large addition to the resources possessed by younger entrants but only a relatively small addition to the resources possessed by older entrants.

During the initial year of farming, beginning entrants had a mean net family income (including family assistance) of $6,180. Of this amount, about 51 percent came from farming, including gifts and inheritances of farming inputs, and 49 percent came from nonfarm sources, including gifts and inheritances of cash and nonfarm goods and services. When broken down by earned income and family assistance, the data showed that 42 percent was earned income from farming, 40 percent was earned income from nonfarm sources and 18 percent was family assistance.

Older entrants had higher incomes than younger entrants. This was true for earned income as well as for total income, including family assistance. The age-associated differences in earned income reflected age-associated differences in family resources, both human and physical, and differences in the relative importance of farm and nonfarm sources of income. In general, entrants who combined farming with a heavy dose of nonfarm employment had higher incomes than those who were completely or nearly dependent on farming for income. The evidence suggested that there was a substantial disparity between the average earnings of labor on beginning-entrant farms and the average earnings of labor in nonfarm jobs held by beginning entrants. The level of earned income tended to be directly related to the share of labor devoted to nonfarm work. The main reason appears to have been the greater relative scarcity of land and capital on farms operated by entrants who spent little or no time at nonfarm jobs. Although entrants who farmed full-time operated larger units than did those who did considerable nonfarm work, the amount of land and capital on these larger farms was not enough to raise earnings to the level of the earnings in nonfarm jobs held by beginning entrants.

Net worth of most beginning entrants increased during the first year of farming. For the group as a whole, the mean addition to net worth was about $2,700. About three-fifths of the group, however, had changes in net worth less favorable than the mean. Nearly 15 percent ended the first year with less net worth than they had at the beginning. Roughly the same proportion had increases of less than $1,000. On the other hand, about 10 percent experienced increases of $6,000 or more. But one-sixth of the entrants in this group received inheritances of more than $6,000.

Beginning-entrant families allocated about two-fifths of their income to savings and about three-fifths to current consumption. Such a high average propensity to save is rare among families generally. But beginning families frequently had a heavy debt load and were short of operating capital. So they were under considerable pressure to forego current consumption and build net worth. Although most beginning-entrant families made substantial savings during the first year of farming, this was often achieved by severely limiting current consumption and making a heavy sacrifice in terms of the current level of living.

Apparently, the consumption-savings behavior of beginning-entrant families was associated with the amount of entrant nonfarm employment. The average propensity to save of entrants with heavy nonfarm work commitments appeared substantially smaller than that of entrants with little or no nonfarm employment. The former group seemed to have consumption-savings preferences that were more similar to those of nonfarm people.

# Characteristics of Operator Entry Into Iowa Farming, 1959-60[1]

by Donald R. Kaldor and Thomas C. Jetton[2]

Operator entry plays a key role in the long-run adaptation of the farm industry to the forces of economic growth in the United States. Some of these forces have been causing a rapid decline in the demand for human resources in farming. They also have been shifting the resource mix on the well-organized farm toward more land and capital in relation to labor. As a result, labor earnings in farming have been under strong downward pressure, and many farmers have been looking for additional land to buy or rent.

Given the rate of operator withdrawal from farming, the rate of operator entry largely determines how rapidly present farmers can expand their land base and achieve more efficient units. It also has an important influence on the rate of adjustment in farm labor input and, therefore, on the pace at which the industry can adapt to the forces reducing the demand for labor. Thus, the long-run level of labor earnings in farming is closely related to the rate of operator entry.

This bulletin reports the findings of an exploratory study of farm operator entry in Iowa during the 2-year period, 1959 and 1960. The study was part of a larger investigation of the components of change in the number of Iowa farm operators. An initial investigation was undertaken to identify and estimate the size of the components of change in the number of Iowa farm operators.[3] This study provided a sample of operators for each of the components of change. Additional studies then were made of the three largest components, consisting of (1) operators who entered farming, (2) operators who withdrew from farming to take nonfarm jobs and (3) operators who withdrew from farming and retired.

The study of operator entry had two main objectives: (1) to establish a benchmark for analyzing post-entry adjustments and financial progress of beginning farmers over time and (2) to provide descriptive information about the people who entered farming, the conditions under which they achieved entry and the financial results experienced during the initial year of operation. A series of follow-up studies of the same group is planned for future years.

## THE DATA

Information for the study was obtained by personal interview from a sample of farm operators who entered farming in Iowa in 1959 and 1960.[4] The sample of entrants was obtained by a state-wide sample survey involving nearly 7,000 farm operators. It was based on a self-weighting, single-stage sample of area segments drawn at random from a universe defined as the open-country zone of Iowa by the current Master Sample materials.[5]

Using a common set of identification criteria and information furnished by persons living in the sample segments in the summer of 1961, interviewers identified all persons who became farm operators in the sample segments in 1959, 1960 and 1961. To classify as an entrant, a person had to be operating a place satisfying the Census of Agriculture's definition of a farm the year of entry and had to be doing something other than performing the functions of a farm operator the year preceding entry.[6] Entrants were classified into two groups: beginning entrants and other entrants. The beginning-entrant group consisted of persons who had never farmed before the year of entry and persons who had farmed before the year of entry but had disposed of their farming assets with the apparent intent of permanent withdrawal. Other entrants consisted of persons who had farmed during an earlier period (2 or more years preceding the year of entry) but had temporarily withdrawn from farming (retained their farming assets) with the apparent intent of re-entering. This group was made up largely of persons who, during the year preceding entry, were temporarily engaged in other activities (e.g., military service) or temporarily incapacitated because of illness or accidents.

An effort was made to locate and interview all persons satisfying the criteria for a beginning entrant in 1959 and 1960. Since information on the first-year

[1] Project 1477, Iowa Agricultural and Home Economics Experiment Station, Center for Agricultural and Economic Development and the Statistical Laboratory, Iowa State University, cooperating.

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[3] Estimates of the components of change in the number of Iowa farm operators are to be published separately.

[4] Year of entry was defined as the year in which the first crop was planted and harvested; i.e., 1959 entrants planted and harvested their first crop in 1959. Typically, entrants began performing operator functions some weeks or months prior to the actual planting of the first crop.

[5] Survey Unit, the Statistical Laboratory, Iowa State University.

[6] The 1959 Census of Agriculture's definition of a farm was based on acreage and value of agricultural products sold. In general, places of 10 acres or more were counted as farms if the value of agricultural products sold during the year was $50 or more. Places less than 10 acres were counted if the value of products sold was $250 or more.

farming operation was desired, persons who entered farming in 1961 were not interviewed. These persons planted their first crop in 1961, and our schedules were taken in the summer of 1961 so that it would not have been possible to obtain information covering their first full year of farming. At the time of the interviews, most of the beginning entrants still resided in the communities in which they started farming. Some, however, had moved to farms in other communities or had withdrawn from farming and taken nonfarm jobs. In most of these cases, interview contacts were made.

The questionnaire was constructed to give as complete a picture as possible of the beginning entrant and his first-year farming operation. It included questions on background, personal and family characteristics, financial assets and liabilities, tenure and leasing arrangements, farm resources, gifts, farm business income and expenses and nonfarm sources of family income. Sufficient information was obtained to prepare an income statement and beginning and ending net-worth statements for the first year of farming.[7]

The identification process turned up 234 persons who had entered farming in the sample segments during 1959 and 1960. Of this number, 206 met the criteria of a beginning entrant and, therefore, were subject to interview. Usable questionnaires were obtained from 191 of these beginning entrants. A breakdown of the enumeration loss is shown in table 1.

State estimates of the number of entrants were based on the sample numbers of beginning and other entrants. Other estimates presented in the study were based on the sample of beginning entrants furnishing usable questionnaires. Comparisons between the attributes of beginning entrants in 1959 and those in 1960 showed no significant differences. Consequently, the groups were combined and treated as a single sample for estimation purposes.

**Table 1. Entrant sample and enumeration loss.**

| | Year of entry | | |
|---|---|---|---|
| | 1959 | 1960 | Total |
| Schedules completed | 88 | 103 | 191 |
| Refusals and incomplete schedules | 3 | 5 | 8 |
| Not located (moved out of state or died) | 2 | 3 | 5 |
| Other | 2 | 0 | 2 |
| Total beginning entrants (subject to interview) | 95 | 111 | 206 |
| Other entrants | 14 | 14 | 28 |
| Total entrants | 109 | 125 | 234 |

## NUMBER OF ENTRANTS

Past estimates of the number of entrants in Iowa farming have been prepared from secondary data on the number of farms, age distribution of farm operators and assumptions about operator deaths and retirements. Because of different assumptions, estimates have varied widely.

The estimates presented here are based on a state-wide sample survey of area segments drawn at random from a universe defined as the open-country (nonincorporated) zone of Iowa. By multiplying the sample number of entrants obtained in the state-wide enumeration by the reciprocal of the sampling rate, unbiased estimates of the total number of entrants in the open-country zone can be generated. These estimates may exclude a few entrants located on farms within incorporated areas. Since they are based on a sample, they are subject to sampling error. The estimates and the 95-percent confidence limits are presented in table 2.

**Table 2. Estimated average annual number of entrants in Iowa farming, 1959 to 1960.**

| Type of entrant | 1959 to 1960 average annual number | 95-percent confidence limits | Rate of entry[a] (percent) |
|---|---|---|---|
| Beginning entrants[b] | 2,522 | 2,156-2,888 | 1.47 |
| Other entrants[c] | 315 | 158- 472 | 0.18 |
| Total | 2,837 | 2,435-3,241 | 1.65 |

[a] Percentage ratio of the average annual number of entrants to the estimated average annual number of operators at the beginning of the year based on the state-wide sample survey.
[b] See text for definition.
[c] See text for definition.

During 1959 and 1960, the average annual number of total entrants (all persons becoming farm operators) was estimated at 2,837. The probability that the actual number was less than 2,435 or greater than 3,241 was 0.05. The average annual number of beginning entrants was estimated to be 2,522, with 95-percent confidence intervals of 2,156 and 2,888. The estimate of the average annual number of other entrants was 315 ($\pm$ 157 at 0.95). Beginning entrants made up 89 percent, and other entrants made up 11 percent of all entrants.

The percentage ratio of the number of entrants during a year to the number of farm operators at the beginning of the year may be defined as the rate of operator entry. During 1959-60, the average annual rate of total operator entry in Iowa was estimated at 1.65 percent. The rate of beginning-operator entry was 1.47 percent, and the rate of other operator entry was 0.18 percent (table 2). During the same period, the average annual rate of operator withdrawal was about 3.1 percent.[8] The difference between the annual average rate of withdrawal and the annual average rate of entry gave an annual average rate of decline in the number of Iowa farm operators of 1.5 percent.

If the rate of operator entry had been 50 percent higher, other things being equal, the rate of decline in the number of operators would have fallen to less than 0.6 percent. On the other hand, if the rate of operator entry had been 50 percent smaller, the rate

[7] Copies of the questionnaire are available on request to the Department of Economics and Sociology, Iowa State University, Ames, Iowa.

[8] Based on estimates from the state-wide sample survey of the components of change in the number of Iowa farm operators.

of decline in the number of operators would have increased to over 2.3 percent per year. Over a 10-year period, a 0.6 percent decline per year would reduce the total number of operators about 5.8 percent, whereas a 2.3-percent decline per year would reduce the number by 20.8 percent. This illustrates the longer-run effect of variation in the rate of operator entry on the number of farm operators.

## SELECTED PERSONAL AND BACKGROUND CHARACTERISTICS

What kinds of people enter Iowa farming as beginning operators? Are they all young people just out of school? How many are married with families? How much formal education have they had? Have they had specialized training for farming? What has been their previous work experience? These are some of the questions that this study was designed to answer. This section presents the data describing selected personal and background characteristics of the beginning-entrant group during the 1959-60 study period.

### Age

Beginning-operator entrants in Iowa were typically young men. The median age was 25 years (table 3). Since the age distribution was positively skewed, the mean age was larger – 28 years. In 1959 the mean age of all Iowa farm operators enumerated by the Census of Agriculture was 48 years – 20 years older than that of the beginning-entrant group. The range in age among beginning entrants was wide, however. The youngest was 16 years, and the oldest was 60 years. Nearly 40 percent of the beginning entrants were under 24 years. About 32 percent were 29 years or older. Only 10 percent were 44 years or older.

Table 3. Age distribution of beginning entrants.

| Age (years) | Number | Percent |
|---|---|---|
| Under 19 | 10 | 5.3 |
| 19 to 23.9 | 66 | 34.5 |
| 24 to 28.9 | 54 | 28.3 |
| 29 to 33.9 | 20 | 10.5 |
| 34 to 38.9 | 13 | 6.8 |
| 39 to 43.9 | 10 | 5.3 |
| 44 to 48.9 | 6 | 3.1 |
| 49 to 53.9 | 6 | 3.1 |
| 54 and over | 6 | 3.1 |
| Total | 191 | |
| Mean age: 28.1 | | |
| Median age: 24.8 | | |

### Marital status

Beginning entrants, not only were typically young, but also were usually married. For more than three-fourths of the group, entry into farming came after marriage. As might be expected, marriage was not as common among the younger entrants as among the older entrants. About 59 percent of the entrants under 24 years of age were married compared with 89 percent of those who were 24 to 33.9 years old and 88 percent of those who were 34 years of age or older (table 4).

### Family size

Although beginning entrants were usually married, those without children were almost as numerous as those with children. Single persons made up about 23 percent of the beginning-entrants group, and married persons without children made up 25 percent. On the other hand, married persons with children made up 52 percent of the group. Of those with children, nearly two-fifths had only one child, 27 percent had two children, 16 percent had three children, and 18 percent had four or more children. Again, the influence of age was apparent. Only about one-third of the beginning operators under 24 years old had children. But 63 percent of those who were 24 to 33.9 years old and 66 percent of those who were 34 years and older had children.

### Years lived on a farm

Historically, farming has been somewhat unique among occupations in that most of its entrants have been recruited internally. This is still true, at least in Iowa. Beginning entrants had lived on a farm an average of nearly 20 years before entering farming. Considering that the mean age of the group was 28 years, most beginning entrants probably had lived on a farm the greater part of their lives.

About 47 percent had lived on a farm 21 or more years before entering farming, and 40 percent had lived on a farm 11 to 20 years. Only 6 percent had lived on a farm 1 year or less, and only 13 percent had lived on a farm less than 11 years (table 5). Clearly, most of Iowa's beginning entrants were thoroughly familiar with farm living.

While it might be expected that years lived on a farm would be associated with age, the findings did not support such a conclusion. Mean years lived on a farm did not differ significantly or consistently among age groups. Apparently, the reason is that the farm-laborer rung in the traditional agricultural ladder has all but disappeared and has been replaced by a non-farm-worker rung. Because of age differences, older entrants could have lived on a farm longer than younger entrants. Presumably, this would have been true if the farm-laborer rung had been an important avenue of entry into farming. That older entrants did not live on a farm longer than younger entrants implies that age differences were reflected in differences in the amount of time spent living in a nonfarm environment. As shown later, there were large differences in nonfarm employment experience associated with age.

Table 4. Marital status of beginning entrants, by age.

| Marital status | Age 16 to 23.9 Number | 16 to 23.9 percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Single | 31 | 41.3 | 8 | 10.7 | 5[a] | 12.2 | 44 | 23.0 |
| Married | 44 | 58.7 | 67 | 89.3 | 36 | 87.8 | 147 | 77.0 |
| Total | 75 | 100.0 | 75 | 100.0 | 41 | 100.0 | 191 | 100.0 |

[a] Includes one case of divorce.

Table 5. Distribution of years beginning entrants lived on a farm before entering farming, by age.

| Years lived on a farm | Age 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| 1 or under | 1 | 1.3 | 5 | 6.7 | 6 | 15.0 | 12 | 6.3 |
| 2 to 10 | 4 | 5.3 | 2 | 2.7 | 6 | 15.0 | 12 | 6.3 |
| 11 to 20 | 43 | 57.4 | 23 | 30.6 | 10 | 25.0 | 76 | 40.0 |
| 21 and over | 27 | 36.0 | 45 | 60.0 | 18 | 45.0 | 90 | 47.4 |
| Total | 75 | 100.0 | 75 | 100.0 | 40 | 100.0 | 190 | 100.0 |
| Mean years | 19.0 | | 20.0 | | 20.0 | | 19.6 | |

Table 6. Distribution of years of school completed for beginning entrants, by age.

| Years of school completed | Age 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Less than 8 | 0 | 0.0 | 5 | 6.7 | 4 | 9.8 | 9 | 4.7 |
| 8 | 4 | 5.3 | 14 | 18.7 | 15 | 36.6 | 33 | 17.3 |
| 9 to 11 | 7 | 9.3 | 9 | 12.0 | 6 | 14.7 | 22 | 11.5 |
| 12 | 53 | 70.8 | 37 | 49.3 | 11 | 26.8 | 101 | 52.9 |
| 13 to 15 | 10 | 13.3 | 4 | 5.3 | 3 | 7.3 | 17 | 8.9 |
| 16 | 1 | 1.3 | 5 | 6.7 | 1 | 2.4 | 7 | 3.7 |
| More than 16 | 0 | 0.0 | 1 | 1.3 | 1 | 2.4 | 2 | 1.0 |
| Total | 75 | 100.0 | 75 | 100.0 | 41 | 100.0 | 191 | 100.0 |
| Median years of schooling | 12.5 | | 12.2 | | 9.8 | | 12.3 | |
| Mean years of schooling | 11.8 | | 11.1 | | 10.1 | | 11.2 | |

## Educational level

Beginning entrants typically were high school graduates. The distribution of years of school completed had a mode of 12, a median of 12.3 and a mean of 11.2. Nearly 22 percent of the group, however, had no more than an eighth-grade education. Although about 5 percent had less than an eighth-grade education, nearly 14 percent had completed more than 12 years of school. But only 5 percent were college graduates (table 6). The range in educational level of beginning entrants in farming stands in sharp contrast to that in many professional and technical occupations with minimum educational entrance requirements.

As with marital status and family size, amount of formal education was associated with age. Younger entrants had more education than older entrants, reflecting the rising trend in educational level over time. Although only 15 percent of those 16 to 23.9 years old had less than a 4-year high school education, 37 percent of the 24 to 33.9 age group and 61 percent of the group 34 years and older had not finished high school. Nearly 71 percent of the youngest age group had completed 12 years of school compared with 49 percent of the middle age group and 27 percent of the oldest age group. College graduates tended to be more numerous in the older age groups, but the proportion with 13 to 15 years of school was greater in the youngest age group.

Persons entering farming in Iowa came almost entirely from the population of males 16 to 59 years of age not enrolled in school. The distribution of years of school completed for this population in 1959 is compared with that for beginning entrants in fig. 1. If beginning entrants were selected at random from this population, the two distributions would be similar, except for sampling error associated with sample size. The bimodal form of both distributions is apparent. In each case, the proportion with only 8 years of school was larger than the proportion with only 9 to 11 years of school. This probably reflects the historical division between grade school and high school and the tendency of people to view each as a unit to be completed. But the percentage with 12 years of education was significantly greater in the beginning entrant-group than in the population – 53 percent as against 34 percent.

The selectivity with respect to education was associated with a higher proportion of younger people in the beginning entrant-group and the generally higher educational level of younger people. While only 11

percent of the population of males 16 to 59 years old not enrolled in school were 16 to 23.9 years of age, 39 percent of the beginning entrants were in this age group. Within the youngest age group, the proportion completing a high school education also was significantly greater for beginning entrants than for the population. About 85 percent of the beginning entrants 16 to 23.9 years of age had at least a high school education compared with 65 percent of the population in this age group. In the middle and oldest age groups, the differences were not significant.

It is not entirely clear why there were relatively more high school graduates in the group of young beginning entrants than in the population of young males not enrolled in school. Unlike some occupations, farming has no legal or extra-legal educational entrance requirements. The explanation probably involves other selectivity factors correlated with education. As will be shown later, a large proportion of the beginning entrants in the 16 to 23.9 age group entered farming under father-son partnership arrangements. Most of these parental farms were substantially above-average in size, suggesting that the families may have had higher than average incomes. Some studies have found a direct relationship between the educational level of children and family economic status. Higher income families can afford more educational investment in children and also may attach a higher relative value to education. If this were true in the present case, it might explain why the proportion of high school graduates was greater for the group of young beginning entrants than for the population of young males not enrolled in school.

### Agricultural training

Beginning entrants were more likely to have had a general high school education than specific vocational-agricultural training. Whereas two-thirds of the group had 12 years or more of school, only 43 percent had taken vocational training for entry into farming. Again, there were large differences among age groups.

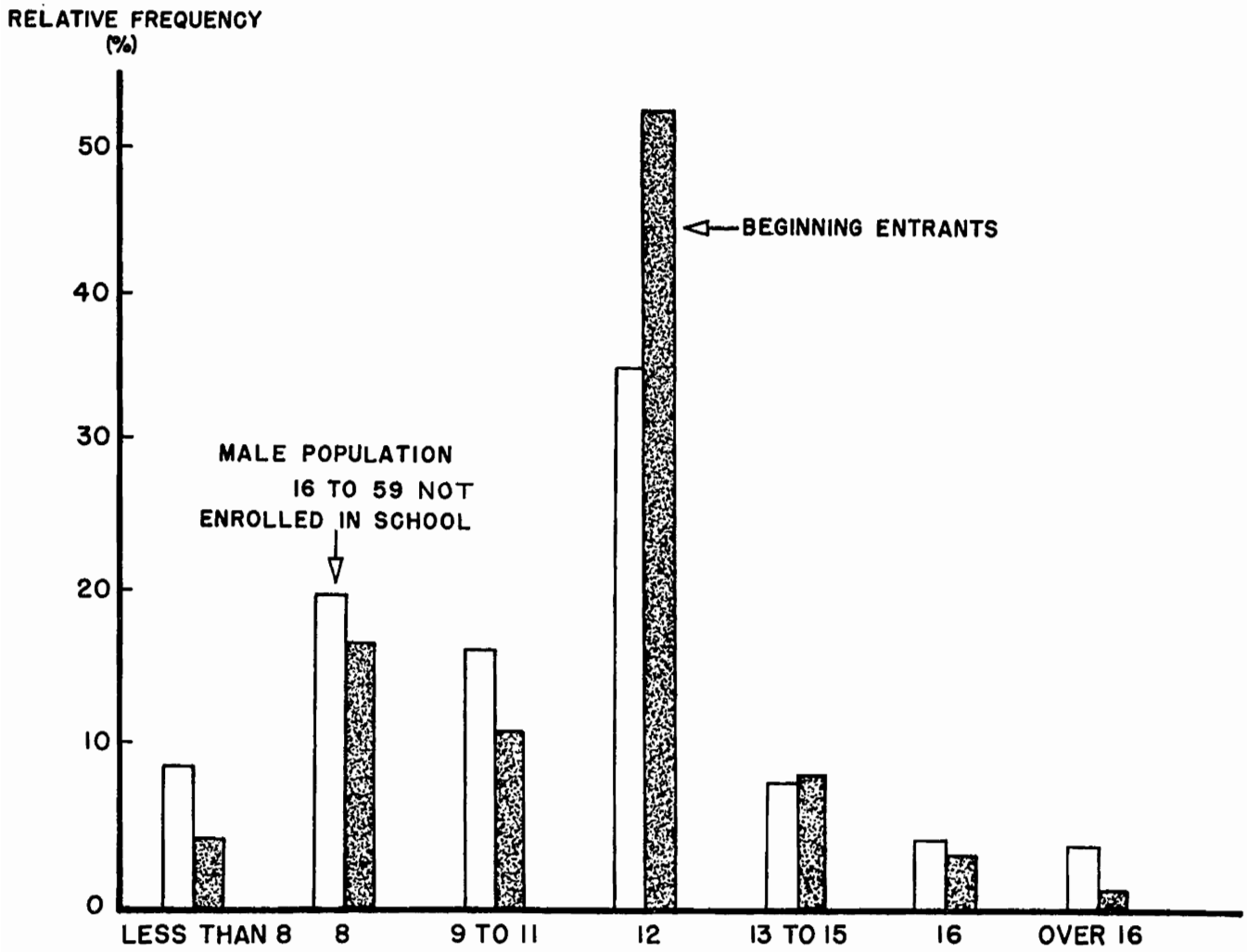


Fig. 1. Distribution of years of school completed, beginning entrants in 1959-60 and 1959 Iowa male population ages 16-58 not enrolled in school.

Younger entrants not only had more general education than older entrants, but a larger proportion also had taken some formal agricultural training. About 64 percent of the entrants under 24 years of age had some vocational agricultural training compared with 35 percent of those 24 to 33.9 years old and 20 percent of those 34 years and older (table 7). Despite the growing emphasis on education generally and the increasing availability of vocational-agricultural training, one third of the entrants under 24 years of age had no specialized training for farming.

Most entrants (83 percent) with specialized training had taken it in high school. About 7 percent had some agricultural training in both high school and college, and 6 percent had some only in college. Although nearly 15 percent of the entrants under 24 years of age had some college education, only 7 percent of this group had taken any agricultural training while in college. Of those with agricultural training in high school, 41 percent had 1 to 2 semesters, 21 percent had 3 to 6 semesters, and 28 percent had 7 or more semesters (table 8).

Historically, FFA and 4-H activities have been oriented toward providing knowledge and skills for entry into farming. Although FFA involvement is associated with vocational agriculture, some of the beginning entrants with agricultural training in high school had not participated in FFA activities. About 39 percent of the group had taken vocational agriculture in high school, about 27 percent had participated in FFA, and about 30 percent had been members of 4-H clubs. In both instances, the number of years of participation tended to vary inversely with age, being largest for young entrants and smallest for old entrants (table 9).

A few of the beginning entrants had been involved in all three – vocational agriculture, FFA and 4-H. Some had been involved in one or two. But over half (56 percent) had been involved in at least one of these activities for a year or more. For entrants under 24 years of age, the figure was 84 percent. This compares with 51 percent for those in age group 24 to 33.9 years and with only 17 percent for entrants 34 years and older.

### Prior employment activities

The traditional concept of the agricultural ladder postulated that persons entering operatorship roles in farming typically were farm laborers before assuming entrepreneurial responsibilities. By working as a farm laborer, the potential entrant supposedly

**Table 7. Distribution of formal agricultural training of beginning entrants, by age.**

| | Age (years) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Some high school agricultural training only | 40 | 54.9 | 21 | 28.4 | 6 | 15.0 | 67 | 35.8 |
| Some high school and college agricultural training | 5 | 6.8 | 1 | 1.4 | 0 | 0.0 | 6 | 3.2 |
| Some college agricultural training only | 0 | 0.0 | 3 | 4.0 | 2 | 5.0 | 5 | 2.7 |
| Some other agricultural training only[a] | 2 | 2.7 | 1 | 1.4 | 0 | 0.0 | 3 | 1.6 |
| No formal agricultural training | 26 | 35.6 | 48 | 64.8 | 32 | 80.0 | 106 | 56.7 |
| Total | 73 | 100.0 | 74 | 100.0 | 40 | 100.0 | 187 | 100.0 |

[a] Primarily G.I.

**Table 8. Semesters of formal agricultural training of beginning entrants having formal agricultural training, by type of training and age.**

| Type of training | Age group | Semesters of training[a] | | | | | | | | No formal training of specified type |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 to 2 | | 3 to 6 | | 7 and over | | Total | | |
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent | |
| High school | 16 to 23.9 | 17 | 56.7 | 9 | 60.0 | 19 | 67.9 | 45 | 61.6 | 28 |
| | 24 to 33.9 | 7 | 23.3 | 6 | 40.0 | 9 | 32.1 | 22 | 30.2 | 52 |
| | 34 and over | 6 | 20.0 | 0 | 0.0 | 0 | 0.0 | 6 | 8.2 | 34 |
| | Total | 30 | 100.0 | 15 | 100.0 | 28 | 100.0 | 73 | 100.0 | 114 |
| College[b] | 16 to 23.9 | 4 | 57.1 | 0 | 0.0 | 1 | 25.0 | 5 | 45.5 | 68 |
| | 24 to 33.9 | 2 | 28.6 | 0 | 0.0 | 2 | 50.0 | 4 | 36.3 | 70 |
| | 34 and over | 1 | 14.3 | 0 | 0.0 | 1 | 25.0 | 2 | 18.2 | 38 |
| | Total | 7 | 100.0 | 0 | 0.0 | 4 | 100.0 | 11 | 100.0 | 176 |
| Other[c] | 16 to 23.9 | 2 | 100.0 | 0 | 0.0 | 0 | 0.0 | 2 | 66.7 | 71 |
| | 24 to 33.9 | 0 | 0.0 | 1 | 100.0 | 0 | 0.0 | 1 | 33.3 | 73 |
| | 34 and over | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 40 |
| | Total | 2 | 100.0 | 1 | 100.0 | 0 | 0.0 | 3 | 100.0 | 184 |

[a] Any semester in which the respondent was in school and in which one or more courses in agriculture were taken.
[b] Enrollment in a college of agriculture.
[c] Includes all types of training not covered by high school or college.

Table 9. Participation of beginning entrants in 4-H and FFA activities, by age.

| Years of participation | Age (years) 16 to 23.9 n = 73 FFA percent | 16 to 23.9 n = 73 4-H percent | 24 to 33.9 n = 75 FFA percent | 24 to 33.9 n = 75 4-H percent | 34 and over n = 41 FFA percent | 34 and over n = 41 4-H percent | Total n = 189 FFA percent | Total n = 189 4-H percent |
|---|---|---|---|---|---|---|---|---|
| 0 | 58.1 | 60.3 | 72.5 | 64.0 | 100.0 | 98.0 | 72.9 | 69.8 |
| 1 to 2 | 14.9 | 8.2 | 8.2 | 9.3 | 0.0 | 0.0 | 9.0 | 6.9 |
| 3 to 4 | 27.0 | 2.7 | 19.3 | 9.3 | 0.0 | 2.0 | 18.1 | 5.3 |
| 5 to 6 | 0.0 | 13.7 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 7.9 |
| 7 and over | 0.0 | 15.1 | 0.0 | 10.7 | 0.0 | 0.0 | 0.0 | 10.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Mean years | 1.3 | 2.3 | 0.8 | 1.7 | 0.0 | 0.1 | 0.8 | 1.6 |

Table 11. Participation of beginning entrants in nofarm employment be for entry into farming, by age.[a]

| | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Did nonfarm work before farming | 44 | 58.7 | 68 | 90.7 | 37 | 90.2 | 149 | 78.0 |
| Did not do nonfarm work before farming | 31 | 41.3 | 7 | 9.3 | 4 | 9.8 | 42 | 22.0 |
| Total | 75 | 100.0 | 75 | 100.0 | 41 | 100.0 | 191 | 100.0 |

[a] Includes only nonfarm jobs of over 3 months duration held after 18 years of age.

acquired knowledge, skills and capital needed for the successful operation of a farm on his own. Whatever may have been the historical truth of this conception of entry, it is not a realistic description of prior employment activities of contemporary entrants into farming in Iowa. Evidently, most contemporary entrants now acquire needed knowledge and skills through formal schooling and related activities, and they acquire needed capital through nonfarm employment.

In the year preceding entry, about half (52 percent) of the beginning entrants were engaged primarily in nonfarm employment. Only 28 percent were working as farm laborers. Almost 10 percent were attending school, and about the same percentage were in the military service (table 10). The proportion with nonfarm work experience, however, was substantially greater than 52 percent.

Table 10. Primary activity of beginning entrants during year preceding entry into farming.

| Activity | Number | Percent |
|---|---|---|
| Nonfarm work | 100 | 52.5 |
| Farm work | 53 | 27.7 |
| School | 19 | 9.9 |
| Military | 19 | 9.9 |
| Total | 191 | 100.0 |

In fact, 78 percent of the beginning entrants had held full-time nonfarm jobs for more than 3 months after age 18. For those 24 years and older, making up over three-fifths of all beginning entrants, the figure was 90 percent. Although nonfarm work experience was less common among beginning entrants under 24 years of age, nearly 59 percent of this group had held full-time nonfarm jobs for more than 3 months (table 11).

Beginning entrants with nonfarm work experience spent an average of 7.1 years at nonfarm employment before entering farming. Those under 24 years of age averaged only 2.2 years, those between 24 and 33.9 years old averaged 5.4 years, and those 34 years and over averaged 15.9 years (table 12).

Although beginning entrants with nonfarm work experience held an average of 1.8 different jobs before entering farming, those in the oldest age group held more than the average number, and those in the youngest age group held less than the average number. Only about 36 percent of the entrants in the youngest age group held more than one job, compared with 65 percent in the middle age group and 68 percent in the oldest age group (table 13).

Beginning entrants with nonfarm work experience had been engaged in a variety of occupations, ranging from a profession to common labor. But most (68 percent) had been craftsmen and operatives. About 39 percent of the jobs were classified in the craftsmen category, and about 29 percent were classified in the operative category. Jobs classified as professional and technical or manager and official were held by 12 percent. That about half of the jobs held were in the craftsmen, professional-technical and manager-official categories indicates that a substantial proportion of all beginning entrants possessed special nonfarm job skills (table 14).

The pattern of jobs held by entrants with nonfarm work experience appears to have been influenced by age. Jobs classified as professional-technical and manager-official were held by 24 percent of those over 24

Table 12. Distribution of years of nonfarm work performed by beginning entrants holding nonfarm jobs before entry into farming, by age.

| Years of nonfarm work | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Under 1 | 12 | 27.3 | 2 | 3.0 | 0 | 0.0 | 14 | 9.5 |
| 1 to 3 | 19 | 43.2 | 17 | 25.5 | 5 | 13.5 | 41 | 27.7 |
| 3 to 5 | 11 | 25.0 | 16 | 23.8 | 3 | 8.1 | 30 | 20.3 |
| 5 to 7 | 2 | 4.5 | 15 | 22.4 | 0 | 0.0 | 17 | 11.5 |
| 7 to 9 | 0 | 0.0 | 7 | 10.4 | 2 | 5.4 | 9 | 6.1 |
| 9 to 11 | 0 | 0.0 | 1 | 1.5 | 2 | 5.4 | 3 | 2.0 |
| 11 to 20 | 0 | 0.0 | 9 | 13.4 | 13 | 35.1 | 22 | 14.8 |
| 20 and over | 0 | 0.0 | 0 | 0.0 | 12 | 32.4 | 12 | 8.1 |
| Total | 44 | 100.0 | 67 | 100.0 | 37 | 100.0 | 148 | 100.0 |
| Mean years | 2.2 | | 5.4 | | 15.9 | | 7.1 | |

Table 13. Distribution and mean number of nonfarm jobs held by beginning entrants with nonfarm work experience before entry into farming, by age.

| Number of jobs held | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| 1 | 28 | 63.6 | 24 | 35.3 | 12 | 32.4 | 64 | 42.9 |
| 2 | 14 | 31.8 | 28 | 41.2 | 14 | 37.9 | 56 | 37.6 |
| 3 | 1 | 2.3 | 13 | 19.1 | 8 | 21.6 | 22 | 14.8 |
| 4 | 1 | 2.3 | 3 | 4.4 | 2 | 5.4 | 6 | 4.0 |
| 5 | 0 | 0.0 | 0 | 0.0 | 1 | 2.7 | 1 | 0.7 |
| Total | 44 | 100.0 | 68 | 100.0 | 37 | 100.0 | 149 | 100.0 |
| Mean number | 1.4 | | 1.9 | | 2.1 | | 1.8 | |

Table 14. Distribution of occupations engaged in before entry into farming by beginning entrants with nonfarm work experience.[a]

| Occupational class | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Professional and technical | 0 | 0.0 | 5 | 7.4 | 2 | 5.4 | 7 | 4.7 |
| Managers and officials | 0 | 0.0 | 4 | 5.9 | 7 | 18.9 | 11 | 7.4 |
| Clerical and kindred | 1 | 2.3 | 4 | 5.9 | 0 | 0.0 | 5 | 3.4 |
| Sales | 1 | 2.3 | 2 | 2.9 | 3 | 8.1 | 6 | 4.0 |
| Craftsman and foreman | 21 | 47.6 | 25 | 36.8 | 12 | 32.5 | 58 | 39.0 |
| Operative | 16 | 36.4 | 20 | 29.4 | 8 | 21.6 | 44 | 29.5 |
| Service worker | 0 | 0.0 | 0 | 0.0 | 2 | 5.4 | 2 | 1.3 |
| Farm laborer | 0 | 0.0 | 2 | 2.9 | 0 | 0.0 | 2 | 1.3 |
| Laborer | 5 | 11.4 | 6 | 8.8 | 3 | 8.1 | 14 | 9.4 |
| Total | 44 | 100.0 | 68 | 100.0 | 37 | 100.0 | 149 | 100.0 |

[a] Includes only full-time work of over 3 months duration performed after 18 years of age.

Table 15. Distribution of the percentages giving negative responses to the question, "Before you decided to farm, did you give any thought to a nonfarm occupation as a career?", by age and previous nonfarm work experience.

| Previous nonfarm work experience | Age 16 to 23.9 | 24 to 33.9 | 34 and over | All ages |
|---|---|---|---|---|
| Had nonfarm work experience | 52.3 | 29.4 | 13.9 | 32.4[a] |
| Did not have nonfarm work experience | 51.6 | 100.0 | 50.0 | 59.5[a] |
| Total | 52.0 | 36.0 | 17.5 | 38.4 |

[a] Difference significant at the 1-percent level.

years of age and by 13 percent of those between 24 and 33.9 years of age. None of those under 24 years of age held jobs in these categories. Such jobs typically require more maturity and/or experience, attributes usually associated with age. The proportion of entrants with nonfarm work experience that held jobs in the craftsmen and operative categories declined consistently from 84 percent for the youngest age group to 54 percent for the oldest age group. In general, young people find it easier to obtain jobs in these categories than in the professional-technical and manager-offiicial categories.

## CONSIDERATION OF ALTERNATIVE OCCUPATIONS

A large proportion of the beginning entrants evidently gave no serious thought to a career other than farming. When asked "Before you decided to farm, did you give any thought to a nonfarm occupation as a career?", 38 percent of the group said no. Nega-

tives responses were most frequent among the youngest entrants and least frequent among the oldest entrants. Although only 18 percent of those 34 years and older stated that they had not given any thought to a nonfarm occupation, 36 percent of those 24 to 33.9 years old and 52 percent of those under 24 years of age gave a negative response (table 15).

As might be expected, responses were not independent of nonfarm work experience. The proportion giving negative replies was significantly larger for entrants with no nonfarm work experience than for those with nonfarm work experience. About 32 percent of the entrants with nonfarm work experience before entering farming gave negative replies compared with 60 percent of those with no nonfarm work experience.

Among beginning entrants with nonfarm work experience, the proportion not giving thought to a nonfarm occupation decreased consistently with increases in age. While 52 percent of the entrants under 24 years of age with nonfarm work experience gave a negative response, 29 percent of those in the 24 to 33.9 year age group and only 14 percent in the 34 years and over age group gave this reply. Older entrants had more years of nonfarm work experience than younger entrants and this undoubtedly influenced consideration of alternative occupations.

What kinds of nonfarm occupations were given most thought by those entrants considering alternative occupations? Table 16 shows the distribution of these occupations classified into census occupational categories. About one-third of the occupations were in the craftsmen-foremen category. Another 26 percent were in the professional and technical group. About 14 percent were in the operative class. And 10 percent were in the manager-official category. The only significant age difference was for the professional and technical category. About 43 percent of the entrants in the 16 to 23.9 year age group gave most thought to occupations in the professional and technical category, compared with 22 percent for those in the 24 to 33.9 year age group and 15 percent for those in the 34 years and over group. Apparently, the younger entrants had higher, although perhaps less realistic, nonfarm occupational aspirations than did the older entrants. The proportion of entrants under 24 years giving most thought to professional occupations was almost exactly the same as that found in a study of the occupational plans of more than 850 Iowa high school senior farm boys in 1959.[9]

## REASONS FOR ENTERING FARMING

In an attempt to shed some light on why the decision was made to enter farming, each beginning entrant was asked to indicate the three most important reasons he decided to farm. Reasons were ranked in order of importance. Because the question was open-end, the classification of answers presented some difficulty.

Reasons relating to such things as type of work and decision-making were classified under the heading "working conditions." Those relating to the environment in which to live and raise a family were placed under the heading "living conditions." Reasons relating to the level and security of income were catalogued under the heading "income and job security conditions." Two reasons of a different nature were classified separately. Others were placed in a miscellaneous category. The results are presented in table 17.

Probably the most noteworthy conclusion suggested by these data is that working and living conditions played a major role and that income and job-security considerations played a minor role in the decisions of beginning entrants to farm. Less than 10 percent of the group gave first-rank reasons relating to income and job security. In contrast, 41 percent gave first-rank reasons relating to working conditions, and 16 percent gave first-rank reasons involving living conditions. A similar pattern showed up when all reasons, disregarding rank order, were classified into the same categories. About 11 percent of all reasons were in the income and job-security category, 41 percent were related to working conditions, and almost 18 percent were in the living-conditions category (table 17).

[9] Donald R. Kaldor, Eber Eldridge, Lee Burchinal and I. W. Arthur. Occupational plans of Iowa farm boys. Iowa Agr. and Home Econ. Exp. Sta. Res. Bul. 508. Sept. 1962.

**Table 16. Distribution of nonfarm occupations given most thought to by beginning entrants considering occupations other than farming, by age.**

| Occupational class | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Professional and technical[a] | 15 | 42.9 | 10 | 21.7 | 5 | 15.2 | 30 | 26.3 |
| Manager and official | 0 | 0.0 | 4 | 8.7 | 8 | 24.2 | 12 | 10.5 |
| Clerical and kindred | 1 | 2.8 | 3 | 6.5 | 0 | 0.0 | 4 | 3.5 |
| Sales | 1 | 2.8 | 3 | 6.5 | 2 | 6.1 | 6 | 5.3 |
| Craftsman and foreman | 11 | 31.5 | 15 | 32.7 | 12 | 36.3 | 38 | 33.4 |
| Operative | 5 | 14.3 | 6 | 13.0 | 5 | 15.2 | 16 | 14.0 |
| Service | 0 | 0.0 | 1 | 2.2 | 0 | 0.0 | 1 | 0.9 |
| Laborer | 2 | 5.7 | 4 | 8.7 | 1 | 3.0 | 7 | 6.1 |
| Total | 35 | 100.0 | 46 | 100.0 | 33 | 100.0 | 114 | 100.0 |

[a] Differences by age significant at the 5-percent level.

Table 17. Distribution of most important reason and all reasons given by beginning entrants for deciding to farm, total and by age for most important reason.

| Reason category | Most important reason | | | | | | | | All reasons[a] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Age (years) | | | | | | Total | | Total | |
| | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | | | | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Working conditions[b] | 36 | 50.0 | 32 | 43.2 | 8 | 20.0 | 76 | 40.9 | 212 | 41.3 |
| Living conditions[b] | 7 | 9.7 | 9 | 12.2 | 14 | 35.0 | 30 | 16.1 | 91 | 17.7 |
| Income and job security conditions[c] | 2 | 2.8 | 8 | 10.7 | 7 | 17.5 | 17 | 9.1 | 58 | 11.2 |
| "Had a chance to start farming"[c] | 14 | 19.4 | 9 | 12.2 | 3 | 7.5 | 26 | 14.0 | 60 | 11.7 |
| "Didn't know what else to do" | 10 | 13.9 | 12 | 16.2 | 2 | 5.0 | 24 | 12.9 | 55 | 10.7 |
| Miscellaneous | 3 | 4.2 | 4 | 5.4 | 6 | 15.0 | 13 | 7.0 | 38 | 7.4 |
| Total | 72 | 100.0 | 74 | 100.0 | 40 | 100.0 | 186 | 100.0 | 514 | 100.0 |

[a] Rank-order of reasons disregarded.
[b] Age differences significant at the 5-percent level.
[c] Age differences not significant at the 5-percent level.

First-ranked reasons not classified under working conditions, living conditions and income and job-security conditions were given by nearly one-third of the beginning entrants. About 14 percent stated that they "had a chance to start farming." Evidently, most of these cases were father-son opportunities. Nearly 13 percent reported that they took up farming because they didn't know what else to do. The extent to which this reason may have reflected lack of knowledge of other alternatives, an absence of nonfarm job opportunities in the community and/or lack of preparation or skills for other employment is not known. Miscellaneous reasons were given by about 7 percent.

It appears that younger entrants and older entrants frequently were motivated by quite different considerations. There were significant age differences for both working conditions and living conditions. About half of the beginning entrants in the youngest age group (16 to 23.9) gave first-ranked reasons related to working conditions, compared with 43 percent in the 24 to 33.9 age group and only 20 percent in the oldest age group. On the other hand, only 10 percent of the youngest group of entrants gave first-ranked reasons relating to living conditions, whereas 12 percent of those in the middle age group and 35 percent in the oldest age group gave first-ranked reasons in this category. "Wanted to be my own boss" was frequently mentioned by young entrants, and "wanted to live in the country" and "good place to raise children" were frequently mentioned by older entrants. Consistent but nonsignificant age differences occurred for first-ranked reasons relating to income and job security conditions and for the reason "had a chance to farm."

The apparent importance accorded nonfinancial considerations, especially by young entrants, lends support to the hypothesis that, under conditions of an excess supply of labor resources in the farm industry, entrants will consist of persons who attach a positive net value to the nonincome attributes of farming. A recent study of the occupational plans of Iowa farm boys found wide variation in the net value attached to the nonincome attributes of farming.[10] Some boys were willing to sacrifice substantial amounts of income to have the nonincome advantages they associated with farming. Others were willing to forego appreciable income to have the nonincome advantages they associated with nonfarm employment. A similar kind of variation also is likely among other groups contributing to the supply of entrants in farming. Under given relative income-earning conditions in farming, the incentive for entry will be greater for persons attaching a positive net value to the nonincome attributes in farming than for others. The more unfavorable relative income-earning opportunities are, the larger will be the proportion of entrants consisting of persons who place a relatively high value on the nonincome attributes of farming. When income-earning opportunities in farming are not as favorable as in nonfarm employments, entrants in farming will tend to consist exclusively of persons who attach a positive net value to the nonincome attributes associated with farming. The heavy emphasis on nonincome considerations reflected in the reasons given by beginning entrants for deciding to farm tends to confirm this conclusion since there is a general belief that labor income-earning opportunities in farming are not as favorable as those in the nonfarm economy.

## FINANCIAL POSITION AT ENTRY

In contrast to many nonfarm occupations where entry involves only a commitment of labor resources, entry into farming usually entails a commitment of both financial and labor resources. To become a farm operator, the individual must acquire full or joint control over land and various kinds of reproducible farming inputs. This control may be obtained by purchase, lease, gift, inheritance or a joint contribution arrangement (e.g., partnership).

Most of these methods, however, are heavily de-

[10] Op. cit.

pendent on the financial position of the prospective entrant and/or that of close relatives. This is obviously true if land and reproducible inputs are to be purchased. But it is also true to a considerable extent in the leasing of land, since landlords generally prefer tenants with much capital to those with little capital, if other things are equal. The financing of entry by gift or inheritance is closely related to the financial resources of the entrant's family or that of his wife.

Although it is possible for an individual to enter farming with little land and capital, competitive position and relative financial success are heavily dependent on the effective quantity of these inputs available to the operator. Under given price and technological conditions, the return that the prospective entrant can expect from his labor and management input largely depends on the effective input of land and capital. Within limits, the more land and capital he can combine with his labor and management the larger will be the return. Thus, the financial resources available to the prospective entrant partly determine his capacity to obtain control over land and reproducible inputs, and these, in turn, partly determine the return he can expect from his labor and management.

What was the financial position of persons entering farming in Iowa during 1959 and 1960? Financial position was measured by net worth on Jan. 1 of the first year of farming (year of entry). The first year of farming was defined as the calendar year in which the first crop was sown. Few, if any, beginning entrants actually started performing operator functions on Jan. 1. This date was selected as the beginning of the accounting year. Although net worth provides an appropriate measure of financial position on that date, it is not an ideal measure of total resources available to finance entry or of the entrant's accumulated net savings out of income. The main reason is that net worth does not properly take account of past and future financial assistance from parents. Because of variations in both the date of actual entry and the time of receipt of parental gifts, the measure includes varying proportions of total family assistance. Reasonably reliable information was obtained on family assistance during the first year of farming, but such information was not obtained on family assistance received before that time.

The mean net worth on Jan. 1 of the first year of farming for all beginning entrants was about $9,000. The median net worth, however, was only $4,600, indicating a highly asymmetrical distribution. The mean value of all assets was $11,700, and that of all liabilities was $2,700. Farm assets made up about 42 percent and nonfarm assets made up 58 percent of all assets. Livestock, machinery and equipment were the principal farm assets. Nonfarm real estate, household goods and cash made up about two-thirds of all nonfarm assets. Real estate debt was the main liability (table 18).

**Table 18. Composition of net worth of beginning entrants on Jan. 1 of year of entry, by age.**

| Item | Age (years) 16 to 23.9 n = 73 | 24 to 33.9 n = 74 | 34 and over n = 38 | Total n = 185 |
|---|---|---|---|---|
| Farm assets | | | | |
| Crops | $ 145 | $ 123 | $ 66 | $ 120 |
| Livestock | 1,029 | 688 | 553 | 794 |
| Machinery and equipment | 1,181 | 1,196 | 684 | 1,084 |
| Land | 633 | 2,173 | 8,847 | 2,936 |
| Total | 2,988 | 4,180 | 10,150 | 4,934 |
| Nonfarm assets | | | | |
| Real estate | 0 | 1,577 | 7,453 | 2,162 |
| Cash | 472 | 1,519 | 1,239 | 1,049 |
| Household goods | 685 | 1,286 | 1,874 | 1,170 |
| Other | 993 | 1,532 | 6,505 | 2,342 |
| Total | 2,150 | 5,914 | 17,071 | 6,723 |
| Total assets | 5,138 | 10,094 | 27,221 | 11,657 |
| Liabilities | | | | |
| Real estate mortgage | 527 | 1,436 | 3,684 | 1,539 |
| Chattel mortgage | 367 | 340 | 274 | 337 |
| Other notes | 692 | 758 | 550 | 689 |
| Other debt | 71 | 106 | 329 | 138 |
| Total liabilities | 1,657 | 2,640 | 4,837 | 2,703 |
| Net worth | 3,481 | 7,454 | 22,384 | 8,954 |

The variation in net worth among beginning entrants was large. Nearly 37 percent of all entrants had a net worth of under $3,000. Over one-sixth had

**Table 19. Distribution of net worth of beginning entrants on Jan. 1 of year of entry, by age.**

| Net worth (dollars) | Age (years) 16 to 23.9 Number | 16 to 23.9 Percent | 24 to 33.9 Number | 24 to 33.9 Percent | 34 and over Number | 34 and over Percent | Total Number | Total Percent |
|---|---|---|---|---|---|---|---|---|
| Under 1,500 | 14 | 19.2 | 12 | 16.3 | 4 | 10.5 | 30 | 16.2 |
| 1,500 to 2,999 | 22 | 30.1 | 13 | 17.7 | 3 | 7.9 | 38 | 20.6 |
| 3,000 to 4,499 | 15 | 20.5 | 7 | 9.4 | 1 | 2.6 | 23 | 12.4 |
| 4,500 to 5,999 | 9 | 12.3 | 7 | 9.4 | 4 | 10.5 | 20 | 10.8 |
| 6,000 to 7,499 | 8 | 11.0 | 7 | 9.4 | 4 | 10.5 | 19 | 10.3 |
| 7,500 to 8,999 | 2 | 2.7 | 6 | 8.1 | 2 | 5.3 | 10 | 5.4 |
| 9,000 to 10,499 | 1 | 1.4 | 2 | 2.7 | 2 | 5.3 | 5 | 2.7 |
| 10,500 to 12,999 | 1 | 1.4 | 9 | 12.2 | 4 | 10.5 | 14 | 7.6 |
| 13,000 to 19,999 | 1 | 1.4 | 7 | 9.4 | 5 | 13.2 | 13 | 7.0 |
| 20,000 and over | 0 | 0.0 | 4 | 5.4 | 9 | 23.7 | 13 | 7.0 |
| Total | 73 | 100.0 | 74 | 100.0 | 38 | 100.0 | 185 | 100.0 |
| Mean value | $3,481 | | $7,454 | | $22,384 | | $8,951 | |
| Median value | $3,050 | | $5,570 | | $ 9,750 | | $4,612 | |

less than $1,500. On the other hand, 22 percent had a net worth of $10,500 or more, and 7 percent had $20,000 or more (table 19).

As might be expected, there were large differences associated with age. Entrants under 24 years of age had a median net worth of only $3,050. Those 24 to 33.9 years old had a median net worth of $5,570, and those 34 years and older had a median net worth of $9,750. About half of the entrants in the youngest group had less than $3,000, compared with only 18 percent of those in the oldest age group. Although all the distributions of net worth by age were positively skewed, asymmetry increased with age. A rough indication of this is provided by the differences between the median and mean values. For entrants under 24 years, the mean exceeded the median by only 14 percent. For those 24 to 33.9 years, the corresponding figure was 34 percent, and for those 34 years and over, the mean net worth exceeded the median net worth by 130 percent. In the youngest age group, there was a heavy concentration in the three lowest net worth classes (table 19). In the middle age group, the cases were spread more uniformly over all net worth classes. In the group 34 years and older, the cases were quite widely dispersed, but with a fairly heavy concentration in the three highest net worth classes.

Undoubtedly, the age-associated differences in net worth largely reflected differences in the length of the income-earning period. Many of the younger entrants had been out of school only a short time when they entered farming, whereas most of the older entrants had been earning incomes for long periods before entry. But there also was some evidence that average annual earnings before entry were greater for older entrants than for younger entrants. A higher proportion of older entrants were skilled nonfarm workers and, therefore, probably received higher wages.

Both total assets and total liabilities increased with age, but total assets increased more rapidly. The proportion of farm assets in total assets was greater for younger entrants than for older entrants. More of the younger entrants than older entrants had been living on the home farm just prior to entry and thus had better opportunity to accumulate assets in the form of livestock, farm machinery and equipment. Although the mean net worth for all entrants was about $9,000, only 4 percent of the entrants under 24 years of age and 30 percent of those 24 to 33.9 years of age had a net worth this large. But over half of the entrants 34 years and older had a net worth of $9,000 or more. Nearly one-fourth of the oldest age group had $20,000 or more.

## CHARACTERISTICS OF THE BEGINNING FARM OPERATION

Clearly, few of the beginning entrants possessed enough personal financial resources to purchase sufficient land and reproducible inputs for a well-organized, full-time farming operation. As a consequence, other methods were frequently used to obtain land and capital inputs needed in farming. Limitations on personal financial resources were reflected in the characteristics of the beginning farm operation.

### Business form

One method of easing the restrictions on entry imposed by limited financial resources is to pool resources under a partnership arrangement. If an entrant becomes a partner in a going concern, typical of nearly all father-son arrangements, the need for personal financial resources may be greatly reduced. In the early years of the partnership, the entrant may contribute largely labor and management.

Although most of the entrants in this study had very limited financial resources, a comparatively small proportion entered farming under a partnership arrangement.[11] Most started as single proprietors. Of the 185 sample cases providing complete information, 152 or 82 percent were single-proprietor entrants, and 33 or 18 percent were partner entrants (table 20). Nearly all the partnerships were father-son or other family arrangements.

**Table 20. Distribution of single proprietorships and partnerships among beginning entrants, by age of entrant and entrant's beginning net worth.**

| Age and beginning net worth | Single proprietorships | | Partnerships | | Total | |
|---|---|---|---|---|---|---|
| | No. | Percent | No. | Percent | No. | Percent |
| 16 to 23.9 years[a] | | | | | | |
| Under $3,000 .. | 27 | 75.0 | 9 | 25.0 | 36 | 100.0 |
| $3,000 to $7,499 | 23 | 71.9 | 9 | 28.1 | 32 | 100.0 |
| $7,500 and over. | 2 | 40.0 | 3 | 60.0 | 5 | 100.0 |
| Total[b] ..... | 52 | 71.2 | 21 | 28.8 | 73 | 100.0 |
| 24 to 33.9 years | | | | | | |
| Under $3,000 .. | 21 | 84.0 | 4 | 16.0 | 25 | 100.0 |
| $3,000 to $7,499 | 19 | 90.5 | 2 | 9.5 | 21 | 100.0 |
| $7,500 and over. | 23 | 82.1 | 5 | 17.9 | 28 | 100.0 |
| Total[b] ..... | 63 | 85.1 | 11 | 14.9 | 74 | 100.0 |
| 34 years and over | | | | | | |
| Under $3,000 .. | 8 | 100.0 | 0 | 0.0 | 8 | 100.0 |
| $3,000 to $7,499 | 8 | 100.0 | 0 | 0.0 | 8 | 100.0 |
| $7,500 and over. | 21 | 95.4 | 1 | 4.6 | 22 | 100.0 |
| Total[b] ..... | 37 | 97.4 | 1 | 2.6 | 38 | 100.0 |
| Total, by net worth[c] | | | | | | |
| Under $3,000 .. | 56 | 81.8 | 13 | 18.9 | 69 | 100.0 |
| $3,000 to $7,499 | 50 | 82.0 | 11 | 18.0 | 61 | 100.0 |
| $7,500 and over. | 46 | 83.6 | 9 | 16.4 | 55 | 100.0 |
| Total ..... | 152 | 82.2 | 33 | 17.8 | 185 | 100.0 |

[a] Differences in business form by net worth within the 16 to 23.9 age group significant at the 13-percent level.
[b] Differences in business form by age significant at the 1-percent level.
[c] Differences in business form by beginning net worth not significant at the 5-percent level.

There were significant differences in business form associated with age of entrant. Younger entrants were more likely to enter under a partnership ar-

[11] Although these arrangements were referred to as partnerships by respondents, there is some question about how many would satisfy the legal requirements of a partnership.

rangement and less likely to enter as single proprietors than older entrants. About 29 percent of the entrants in the 16 to 23.9 age group entered under a partnership arrangement, compared with 15 percent of those in the 24 to 33.9 age group and only 3 percent in the group 34 years and over (table 20). Partner entrants were significantly younger (mean age of 23.3 years) than single-proprietor entrants (mean age of 29.2 years).

The association between age and business form could partly reflect age-associated differences in personal financial resources. Table 19 shows that the amount of beginning net worth was related directly to age – older entrants having more net worth than younger entrants. Because they had less personal financial resources than older entrants, younger entrants may have been under greater pressure to enter under a partnership arrangement than older entrants. If this were true, the relative frequency of single-proprietorship cases would tend to increase and that of partnership cases would tend to decrease with higher net worth independently of age. However, when business forms were classified first by age and then by beginning net worth, there was no tendency for the proportion of single-proprietorship cases to increase and that of partnership cases to decrease with increasing beginning net worth within age groups (table 20). Consistent differences occurred only for the youngest age group, and these (signifiicant at the 13-percent level of probability) pointed to a decline in the relative frequency of single proprietorships with increasing beginning net worth.

An inverse relationship between the relative frequency of single-proprietorship cases and beginning net worth in the 16 to 23.9 age group might be explained by direct relationships between the net worth of the entrant and that of his family and between family net worth and the opportunity to enter farming under a father-son arrangement. It is likely that, in the youngest age group, entrant's net worth was highly correlated with that of his family because of the importance of past parental gifts in determining entrant's net worth at this age. It also is likely that the opportunity to enter farming under a father-son arrangement occurred more frequently in families with high net worth than in those with low net worth. In many of the partnership cases, it appeared that the decision to enter farming was largely independent of the personal financial resources of the entrant. In the interviews, comments offered by respondents suggested that in many of these cases the partnership arrangement was geared to whatever resources the entrant had available.

The data in table 20 indicate that age-associated factors other than beginning net worth may have been mainly responsible for the differences in business form among age groups. Within each beginning net-worth group, the relative frequency of single proprietorships increased and that of partnerships decreased consistently with increasing age. Evidently, the age-associated differences in business form existed independently of age-associated differences in beginning net worth. The "net" differences could have reflected age-associated differences in the opportunity to enter farming under a partnership arrangement. Most of the partnership cases involved father-son partners. Other things being equal, the opportunity for a father-son arrangement might be expected to diminish with increasing age of the entrant, because the fathers of older entrants are more likely to have retired or died than are those of younger entrants. Thus, older entrants may have had fewer opportunities to enter farming under a partnership arrangement. In addition, older entrants, being more mature and having had more experience, may have had less reason for associating themselves with an older operator than younger entrants.

The mean beginning net worth of partner entrants was about two-thirds as large as that of single-proprietor entrants. However, the proportion with a net worth of less than $4,500 was nearly the same (49 percent) in both groups. There were no partner entrants with a net worth of $30,000 or more, whereas 6 percent of the single-proprietor entrants had this much net worth.

### Land tenure

As might be anticipated, most beginning entrants rented the land they operated during the first year of farming. Of those entering as single proprietors, nearly 74 percent began farming as tenants, 23 percent started as full owners, and 3 percent began as part owners. The proportion of tenants among single-proprietor entrants was more than double that for the population of Iowa farm operators in 1959 as reported by the Census of Agriculture.[12] Of those entering as partners, 53 percent started on units where all the land was owned by the other partners. In only one of the 34 cases of partner entrants did the entrant own all the land operated by the partnership (table 21).

Again, there were large differences associated with age. Among single-proprietor entrants, 98 percent of those under 24 years of age entered as tenants, compared with 75 percent of those 24 to 33.9 years of age and only 38 percent of those 34 years and older. Of course, partner entrants were less dependent on rented land than were single-proprietor entrants, because the other partners frequently owned the land operated by the partnership. However, the distribution of partner entrants between the combined tenant and other partner owner groups, on the one hand, and the combined part-owner and owner groups, on

[12] The 1959 Census of Agriculture for Iowa was taken during October and November 1959, approximately the midpoint of the period covered by this study.

Table 21. Distribution of specified land-tenure forms among single-proprietor entrants and partner entrants.

| Land tenure | Single-proprietor entrants | | Partner entrants | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Owner | 36 | 22.9 | 1 | 2.9 |
| Part-owner | 5 | 3.2 | 3 | 8.8 |
| Tenant | 116 | 73.9 | 12 | 35.3 |
| Owned by other partner | .. | .. | 18 | 53.0 |
| Total | 157 | 100.0 | 34 | 100.0 |

Table 22. Relative frequency of specified land-tenure forms among single-proprietor and partner entrants, by age.

| Tenure form | Single-proprietor entrants (n = 152)[a] | | | Partner entrants (n=34)[b] | | |
|---|---|---|---|---|---|---|
| | 16 to 23.9 years (n=52) | 24 to 33.9 years (n=63) | 34 years and over (n=37) | 16 to 23.9 years (n=22) | 24 to 33.9 years (n=11) | 34 years and over (n=1) |
| | (percent) | | | | | |
| Owner | 1.9 | 20.6 | 56.8 | 0.0 | 0.0 | 100.0 |
| Part-owner | 0.0 | 4.8 | 5.4 | 4.5 | 18.2 | 0.0 |
| Tenant | 98.1 | 74.6 | 37.8 | 31.8 | 45.5 | 0.0 |
| Owned by other partner | .. | .. | .. | 63.7 | 36.3 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

[a] Tenure differences by age significant at the 1-percent level.
[b] Differences between owner plus part-owner and tenant plus other partner owner among age groups significant at the 1-percent level.

the other, was not independent of age. Younger partner entrants were involved more frequently in arrangements using rented land or land owned by other partners and less frequently in arrangements using entrant-owned land than older partner entrants (table 22).

There also were significant tenure differences associated with beginning net worth. Entrants with low net worth were tenants, more frequently, and owners or part owners, less frequently, than those with high net worth. Among single-proprietor entrants, almost 95 percent of those with less than $3,000 beginning net worth were tenants, compared with 86 percent of those with $3,000 to $7,499 of beginning net worth and 35 percent of those with $7,500 and more net worth.

The sample of single-proprietor entrants was large enough for further analysis of tenure differences associated with net worth independent of age. The tenure differences associated with age could reflect age-associated differences in beginning net worth as well as age-associated differences in other factors influencing the land tenure of entrants. When the tenure attribute of single-proprietor entrants was classified by both age and beginning net worth, there were significant tenure differences associated with beginning net worth for the group 24 to 33.9 years of age and also for the group 34 years and over. For the group 16 to 23.9 years, however, tenure differences among subgroups with different net-worth levels were not significant (table 23). Evidently, beginning net worth had little influence on whether the youngest entrants obtained the use of land by renting or by ownership. Young entrants with relatively high net worth were renters about as frequently as those with relatively low net worth. On the other hand, entrants in the two older age groups were owners more frequently and renters less frequently when their net worth was high than when it was low.

The age-associated differences in the apparent influence of beginning net worth on tenure probably were partly a reflection of age-associated differences in the desire for land ownership. Among single-proprietor entrants with $7,500 or more beginning net worth, the proportion of owners was significantly greater for older entrants than for younger entrants, indicating that age-associated factors other than net worth were involved in land ownership. As noted earlier, older entrants were more frequently motivated to enter farming by considerations relating to living conditions (housing). Satisfactory housing conditions are more likely to be achieved through land ownership than through land rental. Moreover, older entrants were more heavily committed to nonfarm jobs after entering farming and, therefore, less dependent on farming for income. They probably were less concerned about getting access to sufficient land for a full-time farming operation. Also, some of the younger entrants may have wanted to give farming a try before buying land, even though their capacity to finance purchase was as great as that of some of the older entrants who bought land.

Land was rented by beginning entrants under a variety of leasing arrangements. About one-third of all leases were crop-share-cash contracts. Livestock-

Table 23. Relative frequency distribution of specified land tenure forms among single proprietor entrants, by age and beginning net worth.

| Age and beginning net worth | Land tenure | | |
|---|---|---|---|
| | Renter (percent) | Owner and part owner (percent) | Total (percent) |
| 16 to 23.9 years[a] | | | |
| Under $3,000 (n=27) | 92.3 | 3.7 | 100.0 |
| $3,000 to $7,499 (n=23) | 100.0 | 0.0 | 100.0 |
| $7,500 and over (n=2) | 100.0 | 0.0 | 100.0 |
| Total (n=52)[c] | 98.1 | 1.9 | 100.0 |
| 24 to 33.9 years[b] | | | |
| Under $3,000 (n=21) | 100.0 | 0.0 | 100.0 |
| $3,000 to $7,499 (n=19) | 84.1 | 15.9 | 100.0 |
| $7,500 and over (n=23) | 43.5 | 56.5 | 100.0 |
| Total (n=63)[c] | 74.6 | 25.4 | 100.0 |
| 34 years and over[b] | | | |
| Under $3,000 (n=8) | 75.0 | 25.0 | 100.0 |
| $3,000 to $7,499 (n=8) | 50.0 | 50.0 | 100.0 |
| $7,500 and over (n=21) | 19.0 | 81.0 | 100.0 |
| Total (n=37)[c] | 37.8 | 62.2 | 100.0 |
| All ages[b] | | | |
| Under $3,000 (n=56) | 94.6 | 5.4 | 100.0 |
| $3,000 to $7,499 (n=50) | 86.0 | 14.0 | 100.0 |
| $7,500 and over (n=46) | 34.8 | 65.2 | 100.0 |
| Total (n=152) | 73.7 | 26.3 | 100.0 |

[a] Tenure differences among net worth groups not significant at the 5-percent level.
[b] Tenure differences among net worth groups significant at the 5-percent level.
[c] Tenure differences among age groups significant at the 5-percent level.

share leases accounted for nearly 29 percent, and straight crop-share leases made up about 24 percent. Only 13 percent were cash leases. In terms of land, the relative importance of the livestock-share lease was even greater. Of all land leased by beginning entrants, 38 percent was rented under livestock-share contracts, 34 percent was rented under crop-share-cash contracts, 19 percent was rented under crop-share contracts, and 8 percent was rented under cash contracts.

The leasing pattern for beginning entrants renting land differed in two respects from that of the population of Iowa farmers renting land. Livestock-share leases were more frequent, and crop-share leases were less frequent among beginning entrants than among farmers generally. The greater frequency of livestock-share leases among beginning entrants undoubtedly reflected differences in financial position and the advantage of this type of lease in easing the effect of limited capital on the size of the livestock system.

### Ownership of land, machinery and livestock

Many beginning entrants were heavily dependent on other people for the physical resources they used in farming. Close relatives were important suppliers of these inputs, even among single-proprietor entrants. This is evident from the data in table 24 which show the ownership patterns for land, machinery and livestock on farms operated singly and jointly by beginning entrants.

While unrelated owners supplied all the land operated by about 40 percent of the single-proprietor entrants, nearly 30 percent of these entrants operated land owned by close relatives. Less than one-fourth of the single-proprietor entrants owned all the land that they farmed. Although entrant ownership of machinery and livestock was more common than entrant ownership of land, only two-fifths of the single-proprietor entrants owned all the machinery and less than two-thirds owned all the livestock. Machinery was owned jointly by the entrant and a close-relative landlord on 29 percent of the single-proprietorship units and exclusively by a close-relative landlord on 18 percent of these units. Joint ownership of livestock by the entrant and a related landlord occurred on nearly 22 percent of the single-proprietorship units. Livestock was owned jointly by the entrant and an unrelated landlord in 14 percent of these cases.

As might be expected, exclusive ownership of land, machinery and livestock was less frequent on partnership units than on single-proprietorship units. In nearly two-thirds of the partnership cases, the land was owned entirely by a related partner or a related landlord. Joint ownership by the entrant and a related partner was by far the most common ownership pattern for machinery and livestock on partnership units. This was the ownership pattern for machinery on nearly 62 percent of the partnership units and, for livestock, on 84 percent of the partnership units.

### Decision-making responsibility

Responsibility for decision-making in farming is closely related to resource ownership and the nature of leasing arrangements. Farmers who farm their own land and care for their own livestock normally make all the decisions in crop and livestock production. Those who lease land and jointly own livestock may or may not be solely responsible for decision-making, depending on the nature of the leasing and joint-ownership arrangement. Even with the same lease type, there is wide variation in participation by landlords in the decision-making process.

**Table 24. Ownership of land, machinery and livestock on farms operated by beginning entrants, by business form.**

| Business form and ownership | Land | | Machinery | | Livestock | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| **Single-proprietorship units** | | | | | | |
| Beginning entrant | 36 | 24.2 | 61 | 40.0 | 93 | 64.6 |
| Related landlord | 44 | 29.5 | 27 | 17.8 | 0 | 0.0 |
| Unrelated landlord | 59 | 39.7 | 1 | 0.7 | 0 | 0.0 |
| Related and unrelated landlord | 6 | 4.0 | 0 | 0.0 | 0 | 0.0 |
| Beginning entrant and related landlord | 2 | 1.3 | 44 | 29.0 | 31 | 21.5 |
| Beginning entrant and unrelated landlord | 2 | 1.3 | 9 | 5.9 | 20 | 13.9 |
| Beginning entrant, relative and unrelated person | 0 | 0.0 | 10 | 6.6 | 0 | 0.0 |
| Total[a] | 149 | 100.0 | 152 | 100.0 | 144 | 100.0 |
| **Partnership units** | | | | | | |
| Beginning entrant | 1 | 2.9 | 4 | 11.8 | 0 | 0.0 |
| Related partner | 14 | 41.3 | 3 | 8.8 | 0 | 0.0 |
| Related landlord | 8 | 23.5 | 1 | 2.9 | 0 | 0.0 |
| Unrelated landlord | 3 | 8.8 | 0 | 0.0 | 0 | 0.0 |
| Beginning entrant and related partner | 3 | 8.8 | 21 | 61.8 | 27 | 84.4 |
| Related partner and unrelated landlord | 2 | 5.9 | 0 | 0.0 | 0 | 0.0 |
| Beginning entrant, related partner and related landlord | 0 | 0.0 | 5 | 14.7[b] | 4 | 12.5 |
| Other | 3 | 8.8 | 0 | 0.0 | 1 | 3.1 |
| Total | 34 | 100.0 | 34 | 100.0 | 32[c] | 100.0 |

[a] Variation in total number reflects no information cases.
[b] Includes one case of ownership by beginning entrant, related partner and unrelated landlord.
[c] Excludes two partnership cases with no livestock.

Table 25 shows the patterns of decision-making on farms operated singly or jointly by beginning entrants. Nearly 45 percent of the single-proprietor entrants reported that they were solely responsible for crop decisions. Since less than one-fourth of these entrants owned the land they operated, some who rented land from related or unrelated landlords apparently made all the crop decisions on rented land. On the other hand, 24 percent of the single-proprietor entrants indicated that crops decisions were made jointly by themselves and related landlords. About 30 percent of the single-proprietor entrants rented land from close relatives. In most of these cases, related landlords evidently had a hand in making crop decisions. Although almost 40 percent of the single-proprietor entrants rented land from unrelated landlords, only 28 percent reported that crop decisions were made jointly by themselves and unrelated landlords. Evidently, unrelated landlords were more willing than related landlords to leave the crop decisions to single-proprietor entrants.

Among single-proprietor entrants, the correspondence between ownership patterns and decision-making patterns appears to have been closer for livestock than for land. This probably reflects the more intimate association between tenant and landlord that frequently exists under a livestock-share lease. About two-thirds of the single-proprietor entrants reported that they alone made the livestock decisions. Nearly 65 percent of the single-proprietor entrants owned all the livestock. Almost 18 percent reported that the livestock decisions were made jointly by themselves and a related landlord. Livestock was owned jointly by single-proprietor entrants and related landlords in 21 percent of the cases. Joint ownership and joint decision-making by the entrant and an unrelated landlord each occurred on 14 percent of the single-proprietorship units.

On partnership units, crop and livestock decisions were made jointly either by the entrant and a related partner or by the entrant, a related partner and an unrelated landlord. Crop decisions were made jointly by the entrant and related partner on more than three-fourths of the partnership units. However, exclusive ownership of partnership-operated land by entrants and related partners occurred on only about 45 percent of the partnership units. Apparently a high proportion of the related landlords who owned all the land operated by 24 percent of the partnerships did not participate in making crop decisions. About 13 percent of the partner entrants reported that crop decisions were made jointly by themselves, related partners and other relatives. Unrelated landlords participated more frequently than related landlords in crop decisions on partnership units. Again, there was a closer correspondence between ownership patterns and decision-making patterns for livestock than for crops.

## Land base

Farm management specialists long have emphasized the importance of an adequate land base in organizing an efficient full-time farming operation. This view has been confirmed by numerous studies. One recent Iowa study indicated that a land base of about 350 crop acres was needed to achieve most of the cost economies in crop production under present technological conditions.[13] Another study estimated that, in Iowa, a land base of about 360 acres was needed under 1959 price and technological conditions to generate resource returns in farming comparable to those earned in competitive nonfarm alternatives.[14] In November 1959, according to the Census Agriculture for Iowa, the average land base for all farms was 194 acres, and that for commercial farms was 215 acres.

Beginning entrants farmed significantly smaller acreages than did the population of Iowa farmers. Entrants farming for the first time in 1959 and 1960 operated units with a mean land base of 165 acres. There was a large difference, however, between the mean acreage operated by single-proprietor entrants and that farmed jointly by partner entrants. Whereas partner entrants were associated with units having a mean land base of 269 acres, single-proprietor en-

[13] Earl O. Heady and Ronald D. Krenz. How big will our farms get? Iowa Farm Science 16:51-53. 1961.
[14] William E. Saupe and Donald R. Kaldor. Efficient organization of agriculture in the north central states, 1959 and 1980, preliminary report on research conducted under Iowa contributing project 1483, NC-53, (multilith).

**Table 25. Crop and livestock decision-making on farms operated by beginning entrants, by business form.**

| Business form and decision-maker | Crop decisions | | Livestock decisions | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| **Single proprietorships** | | | | |
| Beginning entrant only | 66 | 44.7 | 97 | 66.9 |
| Beginning entrant and related landlord | 35 | 23.6 | 26 | 17.9 |
| Beginning entrant and unrelated landlord | 41 | 27.7 | 21 | 14.5 |
| Beginning entrat, related ladlord and other landlord | 6 | 4.0 | 1 | 0.7 |
| Total | 148 | 100.0 | 145 | 100.0 |
| **Partnerships** | | | | |
| Beginning entrant and related partner | 24 | 77.4 | 28 | 87.5 |
| Beginning entrant, related partner and other relative | 4 | 12.9 | 4 | 12.5 |
| Beginning operator, related partner and unrelated person | 3 | 9.7 | 0 | 0.0 |
| Total | 31 | 100.0 | 32 | 100.0 |

Table 27. Distribution of farm size in acres operated by beginning entrants, by business form and age.

| | Business form and age | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Single-proprietor entrants | | | | | | | | Partner entrants[a] | | | | | | | |
| | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | Total | | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | Total | |
| Total acres | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Under 49 ..... | 6 | 11.3 | 8 | 12.5 | 11 | 27.5 | 25 | 15.9 | 2 | 9.1 | 0 | 0.0 | 0 | 0.0 | 2 | 5.9 |
| 50 to 99..... | 3 | 5.7 | 8 | 12.5 | 8 | 20.0 | 19 | 12.1 | 1 | 4.5 | 1 | 9.1 | 0 | 0.0 | 2 | 5.9 |
| 100 to 179.... | 27 | 50.9 | 28 | 43.7 | 15 | 37.5 | 70 | 44.6 | 3 | 13.6 | 2 | 18.2 | 1 | 100.0 | 6 | 17.6 |
| 180 to 259.... | 11 | 20.8 | 17 | 26.6 | 6 | 15.0 | 34 | 21.7 | 2 | 9.1 | 3 | 27.3 | 0 | 0.0 | 5 | 14.7 |
| 260 to 499.... | 5 | 9.4 | 3 | 4.7 | 0 | 0.0 | 8 | 5.1 | 13 | 59.2 | 5 | 45.4 | 0 | 0.0 | 18 | 53.0 |
| 500 and over.. | 1 | 1.9 | 0 | 0.0 | 0 | 0.0 | 1 | 0.6 | 1 | 4.5 | 0 | 0.0 | 0 | 0.0 | 1 | 2.9 |
| Total ..... | 53 | 100.0 | 64 | 100.0 | 40 | 100.0 | 157 | 100.0 | 22 | 100.0 | 11 | 100.0 | 1 | 100.0 | 34 | 100.0 |
| Mean value ... | | 161.1 | | 147.8 | | 107.5 | | 142.0 | | 277.9 | | 207.9 | | 160.0 | | 269.4 |

[a] Acreage operated by partnership.

Table 28. Mean acres operated by beginning single-proprietor entrants, by age and tenure.

| | Tenure | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Tenants | | Owners | | Part owners | | Total | |
| Age | Number | Mean acres | Number | Mean acres | Number | Mean acres | Number | Mean acres |
| 16 to 23.9 years..... | 52 | 161.1 | 1 | 160.0 | 0 | .. | 53 | 161.0 |
| 24 to 33.9 years..... | 48 | 169.7 | 13 | 73.2 | 3 | 123.0 | 64 | 147.8 |
| 34 years and over..... | 16 | 148.9 | 22 | 75.2 | 2 | 132.0 | 40 | 107.5 |
| Total ..... ... | 116 | 162.9 | 36 | 76.8 | 5 | 126.6 | 157 | 142.0 |

trants operated farms averaging 142 acres. But nearly all the partnership units supported two families, so the amount of land operated per family was quite similar for both groups of entrants. Thus, the land base per entrant operator was substantially smaller than that for an established operator and only a small fraction of the norms estimated for an efficient full-time farm. Other things being equal, this would be associated with a lower return for entrant labor in farming and/or greater entrant off-farm employment.

There was wide variation in the acreages operated by both single-proprietor entrants and partner entrants. For single proprietors, the land base varied from less than 10 acres to more than 500 acres. Twenty-eight percent of this group started farming on units with less than 100 acres. About 6 percent entered farming on units of 260 acres or more (table 26). Although only 12 percent of the partner entrants were associated with farms having less than 100 acres, the proportion of partner entrants associated with units having less than 100 acres per operator was probably higher than that of single-proprietor entrants. Only 3 percent of the partner entrants were associated with units of 500 acres or more.

Much of the variation in acres operated was related to age and age-associated factors. Among single proprietor entrants, those 16 to 23.9 years of age entered farming on units averaging 161 acres. This compares with land bases of 148 acres for those 24 to 33.9 years of age and 108 acres for those 34 years and over. Although the number of partnership cases was too small to provide a basis for generalization, an inverse relationship between acres and age also was observed in the sample data for this group (table 27).

What explains the fact that single-proprietor entrants 34 years and old farmed significantly smaller acreages than those under 24 years of age? A difference in financial position could be part of the explanation, if younger entrants were better situated financially than older entrants. With the same desire to own land, younger entrants then would be able to finance the purchase of a larger acreage than older entrants. Insofar as capital position also determines the allocation of rented land among prospective tenants, younger entrants also would be able to rent more land than would older entrants. But it has been shown that older entrants had a significantly higher beginning net worth than did younger entrants. Thus, the difference in personal financial resources should have induced a larger acreage for older entrants than for younger entrants, other things being equal.

Evidently, the explanation involves differences in land ownership associated with differences in the desire to own land, which, in turn, were related to differences in motivation to enter farming. As seen in table 28, single-proprietor entrants who were full owners had a mean land base of only 77 acres. On the other hand, the average land base of those who

Table 26. Relative frequency distribution of farms by total acres, beginning entrant farms and all Iowa farms.

| Total acres | Single-entrant farms (n=157) percent | Partner-entrant farms (n=34) percent | All Iowa farms[a] (n=174,707) percent |
|---|---|---|---|
| Under 49 ..... | 15.9 | 5.9 | 11.0 |
| 50-99 ..... | 12.1 | 5.9 | 10.6 |
| 100-179 ..... | 44.6 | 17.6 | 32.6 |
| 180-259 ..... | 21.7 | 14.7 | 23.4 |
| 260-499 ..... | 5.1 | 53.0 | 19.6 |
| 500 and over..... | 0.6 | 2.9 | 2.8 |
| Total ..... | 100.0 | 100.0 | 100.0 |
| Mean acreage ..... | 142.0 | 269.4 | 194.0 |

[a] United States Census of Agriculture, 1959, Vol. I. Part 16, Iowa.

were tenants was 163 acres. The same kind of difference also characterized the population of Iowa farmers.[15] It can be attributed to differences in the relative value attached to land ownership in relation to capacity to finance the purchase of land. With limited financial resources, a farmer may use all his capital for reproducible inputs (power, machinery, livestock and operating expenses) and rent as much land as he can handle efficiently, or he may use it to purchase a much smaller quantity of land along with a correspondingly smaller quantity of operating inputs. Over a wide range of conditions, the first alternative is likely to give a higher return to his labor and owned capital than the second alternative.[16] But if he values land ownership more than the loss in income associated with ownership under these conditions, he will choose the second alternative and become an owner-operator. Since many farmers do not possess enough financial resources to purchase sufficient land and reproducible inputs for a well-organized, full-time farming operation, owner-operators usually farm less land than do tenants.

Among single-proprietor entrants, land ownership was heavily concentrated in the oldest age group. Over 60 percent of the owner-operator entrants were 34 years or older. Within the owner group, acreage differences were neither consistent nor significant among age categories. The same was true within the tenant group. The acreage differences among age categories that showed up in the combined groups were largely a reflection of the differences associated with tenure and the heavier concentration of ownership among older entrants. With owners operating less land than tenants and with most the owners in the oldest age group, entrants 34 years and older farmed smaller acreages than those 16 to 23.9 years of age.

Since older entrants had a higher beginning net worth than did younger entrants, they could have purchased a larger acreage or a larger quantity of reproducible inputs for a larger acreage of rented land. But they chose to be owners and to operate smaller acreages more frequently than did younger entrants. The main reason seems to have been their stronger orientation to nonfarm employment and greater concern for considerations (e.g., living conditions) more closely associated with land ownership. Evidently, land ownership was more in tune with the goals and circumstances of older entrants than with those of younger entrants.

The quality of land and building input on the farms operated by beginning entrants may have been a little above the average of the population of Iowa farms. The mean value of land and buildings per acre was $275 for beginning-entrant farms and $254 for the population of Iowa farms. There was a substantial difference in the per-acre value between the farms operated by single-proprietor entrants and those operated by partner entrants. The average value per acre for single-proprietor entrants was $260 – very close to that of the population of Iowa farms – whereas the average per-acre value for partner entrants was $311. The relatively high per-acre value for partner entrants may have reflected above-average improvements on these farms since many of them were owned by related partners who had accumulated relatively large amounts of farming assets. There was little if any difference in per-acre value associated with entrant age.

### Labor

Labor was by far the most abundant resource in the possession of most beginning-entrant families. Thus, family income was largely dependent on the earnings of labor. Although most of the effort devoted to income-generating activities was spent on the home farm, many family members held nonfarm jobs, and some worked part time for wages on other farms.

Of the 185 beginning entrants providing usable information, 118, or 64 percent, did some nonfarm work for income during the initial year of farming. The proportion doing some nonfarm work was more than twice as large for beginning entrants as for the population of Iowa farmers. Nearly 39 percent of the beginning-entrant group did some work for wages (excluding exchange labor) on other farms. About one-fifth of the wives held nonfarm jobs during the initial year their husbands farmed.

Data on the utilization of labor for income-generating activities are presented in table 29. Because of the difficulties of obtaining accurate labor information in a single survey, the estimates are only rough approximations. The data for nonfarm work and work for wages on other farms are probably quite accurate. However, the estimates of work on the home farm, particularly for entrants, are subject to considerable error. In the case of entrant workers, the data are probably a more accurate measure of time available for work on the home farm than time actually worked on the home farm since there is a strong tendency for respondents to count time spent on the home farm as time worked.

Evidently, beginning entrants and their families spent roughly 3,500 hours on the average at income-generating activities during the first year of farming. Entrant labor made up nearly 84 percent, and labor of other family members made up about 16 percent of the total. About two-thirds of the total was spent at work on the home farm, 27 percent was spent at nonfarm jobs, and about 8 percent was spent at work on other farms for wages. Total time spent at income-

[15] According to data from the 1959 Census of Agriculture for Iowa, owner-operated farms had a mean land base of 145 acres, whereas tenant-operated farms had an average land base of 215 acres.

[16] T. W. Schultz. Production and welfare of agriculture. The Macmillan Company, New York. 1949. pp. 131-132.

Table 29. Utilization of beginning-entrant family labor for income-generating activities during the first year of farming.

| Worker and type of work | Single-proprietor entrants | | | | Partner entrants | Total entrants | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total | | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total |
| | (n=52) | (n=63) | (n=37) | (n=152) | (n=33) | (n=73) | (n=74) | (n=38) | (n=185) |
| | (hours per entrant) | | | | | | | | |
| Entrant | | | | | | | | | |
| Nonfarm work | 442 | 780 | 1,118 | 750 | 537 | 438 | 755 | 1,142 | 711 |
| Work for wages on other farms | 470 | 204 | 62 | 258 | 250 | 438 | 180 | 60 | 257 |
| Work on home farm | 1,980 | 2,022 | 1,789 | 1,950 | 2,190 | 2,022 | 2,068 | 1,798 | 1,993 |
| Total | 2,892 | 3,006 | 2,969 | 2,958 | 2,977 | 2,898 | 3,003 | 3,000 | 2,961 |
| Other family members | | | | | | | | | |
| Nonfarm work | 50 | 255 | 363 | 212 | 284 | 137 | 217 | 406 | 225 |
| Work for wages on other farms | 0 | 11 | 33 | 12 | 21 | 6 | 10 | 32 | 13 |
| Work on home farm | 388 | 287 | 411 | 364 | 150 | 336 | 277 | 400 | 325 |
| Total | 438 | 553 | 807 | 588 | 455 | 479 | 504 | 838 | 563 |
| Total family members | | | | | | | | | |
| Nonfarm work | 449 | 1,035 | 1,581 | 962 | 821 | 575 | 972 | 1,548 | 936 |
| Work for wages on other farms | 470 | 215 | 95 | 270 | 271 | 444 | 190 | 92 | 270 |
| Work on home farm | 2,368 | 2,309 | 2,200 | 2,314 | 2,340 | 2,358 | 2,345 | 2,198 | 2,318 |
| Total | 3,287 | 3,559 | 3,876 | 3,546 | 3,432 | 3,377 | 3,507 | 3,838 | 3,524 |

generating activities per entrant tended to increase with entrant age. This was largely a reflection of age-associated differences in work time of family members other than the entrant. While there was little if any difference between the total work time of younger entrants and that of older entrants, other family members of older entrants tended to spend more time at income-generating activities than did those of younger entrants. Younger entrants had fewer family members, and a smaller proportion of these members was of working age.

Although the total work time of entrants appeared independent of age, the allocation of this time between farm and nonfarm activities was associated with age. Younger entrants tended to spend more time at work on the home farm and at work on other farms for wages and less time at nonfarm jobs than did older entrants. Entrants 34 years and older spent nearly 38 percent of their total work time at nonfarm jobs. This compares with 15 percent for those 16 to 23.9 years of age and 25 percent for those 24 to 33.9 years of age.

A similar pattern of allocation of work time also was evident for other family members. Other family members of older entrants spent a larger proportion of their total work time at nonfarm jobs and a smaller proportion at farming activities than did those of younger entrants. The age-associated differences in the allocation of entrant and family work time undoubtedly were related to the age-associated differences in farm size and reasons for entering farming discussed earlier.

Differences in labor utilization between single-proprietor entrants and partner entrants were small and of little importance (table 29). Apparently partner entrants spent somewhat more time at farm work and somewhat less time at nonfarm work than did single-proprietor entrants. Again, this probably was related to the differences in farm size and motives for entering farming.

Table 30 provides some evidence of the association between farm size in acres and nonfarm work. Among single-proprietor entrants, those farming less than 140 acres worked an average of 1,154 hours at nonfarm jobs during the first year of farming. On the other hand, those farming 140 acres or more spent an average of only 330 hours at nonfarm jobs. Although there was some tendency for nonfarm work to increase with age independently of farm size, it appears that most of the age-associated variation in nonfarm work was related to age-associated variation in farm size. It is likely that the causal relationship ran both ways. In some cases, the amount of nonfarm work probably was a major factor determining the acreage to be operated, particularly for those entrants who had long standing nonfarm work commitments before entering farming and who entered farming mainly for nonincome reasons. In other cases, it is likely that the size of the land base largely determined the pressure for supplementary income and, therefore, the amount of nonfarm work done. In both instances, an inverse relationship between acreage and nonfarm work would be expected.

Table 30. Average hours spent by single-proprietor entrants at nonfarm work, by age and farm size in acres.

| Age | Farm size in acres | | Total |
|---|---|---|---|
| | Under 140 acres | 140 acres and over | |
| | (n=76) | (n=76) | (n=152) |
| 16 to 23.9 years | 651 | 298 | 448 |
| 24 to 33.9 years | 1,377 | 318 | 787 |
| 34 years and over | 1,338 | 451 | 1,074 |
| Total | 1,154 | 330 | 741 |

The amount of nonfarm work done by beginning entrants varied geographically. In northeastern Iowa, entrants spent an average of 958 hours at nonfarm jobs. The figure for northwestern Iowa was only 398 hours, and that for southern Iowa was 798 hours. Undoubtedly, these differences reflected area differences both in the pressure to supplement farm income and in the availability of nonfarm jobs. In northwestern Iowa the farms operated by beginning entrants were substantially larger (60 percent more land input), and the availability of nonfarm employment was generally less than in the other areas. For both reasons, the amount of nonfarm work would tend to be less in this area. Farms operated by beginning entrants in northeastern Iowa were only slightly larger than in southern Iowa, but availability of nonfarm employment was greater in the former area than in the latter area.

### Farm operating capital

On Jan. 1 of the year of entry, beginning entrants owned crops, livestock, machinery and equipment having a mean value of about $2,000. This represented the stock of farm operating capital accumulated out of past income, borrowings and gifts. Machinery and equipment made up 54 percent of the total. Livestock made up 40 percent, and crops made up 6 percent. There was no signifiicant difference in the stock possessed by single-proprietor entrants and that owned by partner entrants. Older entrants, however, had less farm operating capital on Jan. 1 of the year of entry than did younger entrants (table 31).

By the end of the calendar year of entry, the mean value of farm operating capital of all entrants had risen to about $7,500. Of this total, livestock represented 44 percent; machinery and equipment made up 36 percent, and crops made up 20 percent. The increase in farm operating capital during the first year of farming represented savings out of current income and debt creation. On the average, beginning entrants increased their net worth by about $2,700 (see table 39, p. 767). Nearly all of this increase was in the form of farm-operating inputs. On the average, beginning entrants also increased their non-real-estate debt by $3,000. The borrowed funds were used mainly to purchase farm machinery, equipment and livestock.

Evidently, partner entrants increased their farm-operating inputs more than did single-proprietor entrants. But partner entrants also increased their non-real-estate debt more than did single-proprietor entrants. Farm-operating inputs increased by nearly $7,700 for partner entrants and by $5,100 for single-proprietor entrants. Single-proprietor entrants experienced an increase in net worth of nearly $2,800 and an increase in non-real-estate debt of close to $2,600, whereas partner entrants increased their net worth by $2,400 and their non-real-estate debt by almost $5,000. The greater increase in farm-operating inputs of partner entrants was reflected in the larger accumulation of non-real-estate debt.

## FAMILY ASSISTANCE

Beginning entrants frequently received assistance from relatives in getting established in farming. In fact, 68 percent of the group reported receiving some family help during the first year of farming.[17] The amounts and forms of assistance varied widely. Of the 127 entrants who got family assistance, 124 received gifts from living relatives (simply referred to as gifts), and three received inheritances. The assistance ranged up to $42,000 (an inheritance) and included a variety of farming inputs, cash and nonfarm goods. Based on the total sample of entrants (n=188), the mean value of family assistance (gifts and inheritance) during the first year of farming was $1,132. For those receiving assistance (n=127), the average value was $1,672 (table 32).[18]

Although there were only three cases of inheritance, the amounts involved were relatively large, averaging nearly $22,000 per recipient. In two cases, one involving $42,000 and the other involving $18,500 the inheritance included farm real estate, livestock and farm machinery. In the third case, the inheritance of $5,000 consisted of cash. Those who received an

[17] An Indiana study found that more than two-thirds of the beginning operators studied had received family assistance in getting established in farming. See: Lester L. Arnold. Problems of capital accumulation in getting started farming. Ind. Agr. Exp. Sta. Bull. 638. 1957.

[18] In general, estimates of the value of gifts were made by respondents on the basis of what they would have had to pay for the items in the local market. The major exception was machine use where estimates were based on machine time and appropriate custom rates.

**Table 31. Farm operating inputs owned by beginning entrants on Jan. 1 and Dec. 31 of the year of entry, by age and business form.**

| Age and business form | Operating input | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Machinery and equipment | | Livestock | | Crops | | Total | |
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| Age | | | | | | | | |
| 16 to 23.9 years (n=73) | $1,181 | $2,526 | $1,029 | $3,440 | $ 145 | $1,516 | $2,355 | $7,482 |
| 24 to 33.9 years (n=74) | 1,196 | 2,961 | 688 | 3,482 | 123 | 1,782 | 2,007 | 8,225 |
| 34 years and over (n=38) | 684 | 2,437 | 553 | 2,745 | 66 | 1,132 | 1,303 | 6,314 |
| Business form | | | | | | | | |
| Single-proprietor entrants (n=154) | 1,039 | 2,429 | 790 | 3,178 | 134 | 1,451 | 1,963 | 7,058 |
| Partner entrants (n=31) | 1,245 | 3,845 | 767 | 3,939 | 48 | 1,973 | 2,060 | 9,757 |
| All entrants (n=185) | 1,084 | 2,682 | 794 | 3,314 | 120 | 1,543 | 1,998 | 7,539 |

Table 32. Assistance in the form of gifts and inheritance received by beginning entrants during the first year of farming, by age and business form.

| | Gifts | | | | Inheritance | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Mean value | | | | Mean value | | | | Mean value | |
| | Number receiving | Percent receiving | Those receiving | All | Number receiving | Percent receiving | Those receiving | All | Number receiving | Percent receiving | Those receiving | All |
| **Age (years)** | | | | | | | | | | | | |
| 16 to 23.9 (n=73).. | 59 | 80.8 | $1,538 | $1,242 | 0 | 0.0 | $ .... | $ .... | 59 | 80.8 | $1,521 | $1,229 |
| 24 to 33.9 (n=74).. | 54 | 73.0 | 952 | 695 | 1 | 1.4 | 5,000 | 67 | 55 | 74.3 | 1,026 | 762 |
| 34 and over (n=41). | 11 | 26.8 | 512 | 137 | 2 | 4.9 | 30,299 | 1,478 | 13 | 31.7 | 5,095 | 1,615 |
| Total (n=188) .. | 124 | 66.0 | 1,187 | 783 | 3 | 1.6 | 21,866 | 349 | 127 | 67.6 | 1,672 | 1,132 |
| **Business form** | | | | | | | | | | | | |
| Single-proprietor entrants (n=155) . | 106 | 68.4[a] | 1,090 | 746 | 3 | 1.9 | 21,866 | 423 | 109 | 70.3 | 1,662 | 1,169 |
| Partner entrants (n= 33) ..... | 18 | 54.5[a] | 1,734 | 946 | 0 | 0.0 | .... | .... | 18 | 54.5 | 1,734 | 946 |
| Total (n=188) . | 124 | 66.0 | 1,187 | 783 | 3 | 1.6 | 21,866 | 349 | 127 | 67.6 | 1,672 | 1,132 |

[a] Difference significant at the 14-percent level of probability.

inheritance were older than the typical entrant, and they entered farming as single proprietors.

The effect of inheritance on the mean value of family assistance was quite large, even though there were only three cases. For the 124 entrants receiving gifts from living relatives (excluding inheritance), the mean value of assistance was $1,187. Based on all entrants (n=188), the average value was $783. The inclusion of inheritance raised the mean value for all entrants to $1,132 and that for recipients to $1,672.

The receipt of gifts (excluding inheritance) was associated with entrant age. The proportion receiving gifts and the amount received per entrant were greater for young entrants than for old entrants (table 32). In the 16 to 23.9 age group, 81 percent of the entrants received gifts with a value of $1,242 per entrant. For the 24 to 33.9 age group, the comparable figures were 73 percent and $695. In the 34 years and over group, only 27 percent received gifts with a value of only $137 per entrant.[19]

It is likely that these differences were related to the age-associated differences in beginning net worth and farm size discussed earlier. Younger entrants generally were less able to finance entry, and they operated larger acreages than older entrants. As a result, younger entrants probably were under more pressure to obtain assistance than were older entrants. Also, it is likely that a greater proportion of younger entrants than of older entrants had living parents who could offer gift assistance. Although the number of inheritance cases was much too small to permit generalization, available information pointed to direct relationships between the frequency and amount of inheritance and entrant age. Such relationships might be expected because of positive correlations between entrant age and the probability of parental death and between parental age and estate size.

Since partner entrants were younger than single-proprietor entrants and because younger entrants were recipients of gifts more frequently than older entrants, it might be expected that partner entrants would receive gifts more frequently than single-proprietor entrants. Evidently, this was not the case, however.[20] Gifts were received by 68 percent of the single-proprietors entrants and by 54 percent of the partner entrants. But partner entrants tended to receive larger gifts than did single-proprietor entrants. Based on the number receiving gifts, the mean values for partner entrants and single-proprietor entrants were $1,734 and $1,090, respectively.

Although gift assistance took a variety of forms, most of it was oriented toward the farm business. Nearly three-fourths of the total value of gifts consisted of various kinds of farm-operating inputs. Cash made up about 10 percent and nonfarm goods about 15 percent of the total. Machine use was by far the most frequent kind of gift. About two-fifths of all entrants received free use of some farm machinery. The value of free machine use was estimated at $233 per entrant (table 33). Gifts of livestock with a value of $149 per entrant were received by 14 percent of the group. About the same proportion received interest-free loans. Other frequent gifts were feedstuffs, farm labor and household goods. While only 7 percent of the group received gifts of cash, the amount involved per recipient was quite large ($1,053). Likewise, only 5 percent of the entrants received gifts of farm machinery, but the value per recipient was $1,027. The value per entrant, however, was only $49.

Some indication of the importance of gift assistance (excluding inheritance) is provided by the percentage ratio of the value of gifts to beginning net worth. For all beginning entrants, the value of gifts received during the initial year of farming was equal to about 9 percent of the total net worth on Jan. 1 of the year of entry. Because of the inverse relationship between value of gifts received and entrant age and the direct relationship between beginning net worth and age,

[19] A similar finding of an inverse relationship between size of gift and entrant age was reported in Arnold, op. cit.

[20] A test of indipendence gave a $X^2$ value such that about 14 percent of random samples from the hypothetical population would have larger values.

Table 33. Assistance in the form of gifts received by beginning entrants during the initial year of farming, by kind of gift and age.

| Kind | 16 to 23.9 | | | 24 to 33.9 | | | 34 and over | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean value | | | Mean value | | | Mean value | | | Mean value | |
| | Number receiving | Those receiving | All (n=73) | Number receiving | Those receiving | All (n=74) | Number receiving | Those receiving | All (n=41) | Number receiving | Those receiving | All (n=188) |
| Farm operating inputs | | | | | | | | | | | | |
| Livestock | 12 | $1,531 | $ 252 | 13 | $ 734 | $129 | 1 | $ 120 | $ 3 | 26 | $1,075 | $149 |
| Hay, grain and pasture | 15 | 586 | 120 | 4 | 823 | 44 | 0 | .... | .. | 19 | 635 | 64 |
| Machine use | 37 | 706 | 358 | 33 | 469 | 209 | 6 | 417 | 61 | 76 | 580 | 233 |
| Gas, seed and fertilizer | 6 | 167 | 14 | 5 | 264 | 18 | 0 | .... | .. | 11 | 211 | 12 |
| Labor | 9 | 342 | 42 | 9 | 518 | 63 | 2 | 280 | 14 | 20 | 415 | 44 |
| Interest on borrowed funds | 13 | 138 | 24 | 11 | 243 | 36 | 3 | 143 | 10 | 27 | 181 | 26 |
| Farm machinery | 5 | 1,476 | 101 | 2 | 280 | 8 | 2 | 650 | 32 | 9 | 1,027 | 49 |
| Total farm operating input | | | 911 | | | 507 | | | 120 | | | 577 |
| Cash | 9 | 876 | 107 | 5 | 1,372 | 93 | 0 | .... | .. | 14 | 1,053 | 78 |
| Household goods | 9 | 990 | 122 | 16 | 414 | 90 | 2 | 365 | 18 | 27 | 603 | 86 |
| Other nonfarm property | 4 | 1,862 | 102 | 1 | 400 | 5 | 0 | .... | .. | 5 | 1,570 | 42 |
| Total | 59 | 1,538 | 1,242 | 54 | 952 | 695 | 11 | 512 | 137 | 124 | 1,187 | 783 |

this ratio varied greatly with entrant age. For those 16 to 23.9 years of age, the value of gifts was equal to 36 percent of beginning net worth. The ratio declined to 9 percent for entrants in the 24 to 33.9 age group and dropped to 0.6 percent for those 34 years and older. Gift assistance during the first year of farming represented a large addition to the resources possessed by young entrants but only a small addition to the resources possessed by old entrants.

## INITIAL YEAR'S FINANCIAL RESULTS

Sufficient information was obtained from each beginning entrant to prepare an income statement and beginning and ending year balance sheets for the calendar year in which the first crop was planted and harvested. The income and net worth estimates provide a picture of the financial results experienced by beginning entrants during their initial year of farming.

### Total income

Most beginning entrants and their families derived income from both farm and nonfarm sources. Many also received gifts of farming inputs, cash and nonfarm goods and services. Two sets of income estimates were prepared. One set included family assistance, and the other set excluded family assistance. Income excluding family assistance is referred to as earned income.

During the first year of farming, the average total income of entrants and their families was $6,182. Of this amount, about 51 percent came from farming, including gifts and inheritance of farm inputs, and about 49 percent came from nonfarm sources, including gifts and inheritance of cash and nonfarm goods and services (table 34). When broken down by earned income and family assistance, the data show that 42 percent of total income was earned income from farming, 40 percent was earned income from nonfarm sources, and 18 percent was family assistance. Total earned income from all sources made up 82 percent of total income.

Older entrants tended to have a higher total income than did younger entrants. This also was true for total earned income. Total income per entrant was $5,212 for entrants 16 to 23.9 years of age, $6,300 for those 24 to 33.9 years of age and $7,850 for those 34 years and over. A direct relationship between total income and age up to retirement is typical of income earners generally. In the case of beginning entrants, the relationship reflected age-associated differences in family resources, both human and physical, and differences in the relative importance of farm and nonfarm sources of income. In general, younger entrants had a smaller amount of resources for income-earning activities and they depended more heavily on farming for income than did older entrants.

Although single-proprietor entrants tended to have higher total incomes than partner entrants ($6,290

Table 34. Total income per entrants from farm and nonfarm sources, by business form and age.

| Item | Single-proprietor entrants | | | | | Total entrants | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total | Partner entrants | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total |
| n | 52 | 63 | 38 | 153 | 33 | 73 | 74 | 39 | 186 |
| Net farm income, excluding gifts and inheritance of farm items | $2,999 | $2,793 | $1,246 | $2,479 | $2,986 | $3,009 | $2,836 | $1,238 | $2,569 |
| Net farm income, including gifts and inheritance of farm items | 3,814 | 3,246 | 1,570 | 3,023 | 3,748 | 3,819 | 3,336 | 1,552 | 3,152 |
| Other family income, excluding nonfarm gifts and inheritance | 850 | 2,710 | 4,884 | 2,618 | 1,753 | 919 | 2,697 | 4,915 | 2,464 |
| Other family income, including nonfarm gifts and inheritance | 1,363 | 3,006 | 6,304 | 3,267 | 1,936 | 1,393 | 2,964 | 6,298 | 3,030 |
| Total income, excluding gifts and inheritance | 3,849 | 5,503 | 6,130 | 5,097 | 4,739 | 3,928 | 5,533 | 6,153 | 5,033 |
| Total income, including gifts and inheritance | 5,177 | 6,252 | 7,874 | 6,290 | 5,684 | 5,212 | 6,300 | 7,850 | 6,182 |

Table 35. Beginning entrants with less than $3,000 of total family income, including gifts and inheritance, by business form and age.

| Business form and age | Number with less than $3,000 total income | Percent with less than $3,000 total income | Mean income of those having less than $3,000 total income |
|---|---|---|---|
| Single-proprietor entrants | | | |
| 16 to 23.9 years | 11 | 21.2 | $1,886 |
| 24 to 33.9 years | 11 | 17.5 | 2,286 |
| 34 years and over | 9 | 23.7 | 1,938 |
| Total | 31 | 20.2 | 1,985 |
| Partner entrants | 7 | 21.2 | 1,668 |
| All entrants | 38 | 20.4 | 1,930 |

compared with $5,684), this was largely a reflection of the higher average age of single-proprietor entrants since older entrants had higher incomes than did younger entrants. For those in the same age groups, there was no appreciable difference between the total income of single-proprietor entrants and that of partner entrants.

The difference in total income between single-proprietor entrants and partner entrants was a result of higher nonfarm incomes received by single-proprietor entrants. Partner entrants had a larger farm income than single-proprietor entrants, but had a much smaller income from nonfarm sources. Again, this difference was associated with the younger average age of partner entrants. For entrants of the same age, there was little difference between the mean income from farming of single-proprietor entrants and that of partner entrants.

The relative contribution of farm and nonfarm sources to total income tended to vary with age. For entrants in the 16 to 23.9 age group, income from farming made up over 70 percent of total income. Entrants in the 24 to 33.9 age group obtained about 53 percent of their total income from farming. Those 34 years and over obtained only 20 percent of their total income from farm sources. The association between the relative contribution of farming to total income and age was most apparent for single-proprietor entrants, but there was some evidence that it also existed for partner entrants.

Total incomes of most beginning entrants were well above the $3,000 level used by the President's War on Poverty Program, but one-fifth of the group had total incomes less than this amount. The relative frequency of low-income cases was about the same for single-proprietor entrants as for partner entrants. Likewise, there were no substantial differences among age groups. The mean total income of entrants having less than $3,000 was about $1,930 (table 35).

### Income from farming

Beginning entrants had receipts from farm operations averaging $8,513 (table 36). Crop, livestock and livestock product sales represented 52 percent of the total. Inventory increase made up 46 percent, and miscellaneous farm receipts accounted for 2 percent. The large share made up of inventory increase reflected a heavy accumulation of farm operating capital. This is to be expected on beginning-entrant farms, but it would be quite unusual on well-established units. Entrants 34 years and older tended to have smaller farm receipts than did younger entrants. Undoubtedly, this was associated with the differences in acreages operated. As noted earlier, the oldest group operated smaller acreages and was more heavily involved in nonfarm employment than were the younger groups. Partner entrants tended to have greater farm receipts than did single-proprietor entrants. Most of the difference was the result of a larger inventory increase, representing the partner entrant's increased contribution to the operating capital of the partnership.

Table 36. Farm receipts, expenses and income of beginning entrants, by business form and age.

| Item | Single-proprietor entrants | | | | | Total entrants | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total | Partner entrants | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total |
| n | 52 | 63 | 38 | 153 | 33 | 73 | 74 | 39 | 186 |
| Farm receipts | | | | | | | | | |
| Crop sales | $1,198 | $ 930 | $1,039 | $1,048 | $1,217 | $1,249 | $ 936 | $1,028 | $1,078 |
| Livestock and livestock product sales | 3,899 | 3,730 | 2,092 | 3,380 | 3,015 | 3,709 | 3,599 | 2,043 | 3,315 |
| Inventory increase | 3,463 | 4,156 | 3,184 | 3,679 | 5,108 | 3,794 | 4,462 | 3,187 | 3,932 |
| Miscellaneous farm receipts | 229 | 146 | 177 | 183 | 214 | 224 | 159 | 173 | 188 |
| Total | 8,789 | 8,962 | 6,492 | 8,290 | 9,554 | 8,976 | 9,156 | 6,431 | 8,513 |
| Farm expenses | | | | | | | | | |
| Crop expense | 530 | 632 | 332 | 523 | 638 | 557 | 634 | 345 | 543 |
| Livestock purchases | 2,193 | 2,039 | 1,896 | 2,056 | 2,106 | 2,100 | 2,141 | 1,854 | 2,065 |
| Depreciation | 171 | 242 | 206 | 209 | 284 | 196 | 258 | 201 | 223 |
| Other farm expenses | 2,081 | 2,806 | 2,488 | 2,481 | 2,777 | 2,304 | 2,790 | 2,477 | 2,533 |
| Total | 4,975 | 5,719 | 4,922 | 5,269 | 5,805 | 5,157 | 5,823 | 4,877 | 5,364 |
| Net farm income | 3,814 | 3,243 | 1,570 | 3,021 | 3,749 | 3,819 | 3,333 | 1,554 | 3,149 |
| Gifts and inheritance of farm items[a] | 815 | 453 | 324 | 544 | 762 | 810 | 500 | 314 | 583 |
| Net farm income, excluding gifts and inheritance | 2,999 | 2,790 | 1,246 | 2,477 | 2,987 | 3,009 | 2,833 | 1,240 | 2,566 |

[a] The three cases of inheritance were distributed as follows: all were single proprietor entrants; two were 34 years and older, and one was 24 to 33.9 years of age.

The mean level of farm expenses for beginning entrants was $5,364. Livestock purchase was the largest single expense item, reflecting a relatively high expenditure for breeding stock. Differences in farm expenses among age groups were neither large nor consistent. Even though single-proprietor entrants 34 and older operated substantially smaller acreages than did entrants 16 to 23.9 years of age, production expenses were not much smaller than those of the youngest age group.

On the average, nearly one-fifth of the net income from farming of beginning entrants represented gifts and inheritances of farming inputs. These gifts increased receipts and reduced expenses. Excluding this assistance, average net farm income amounted to $2,566 instead of $3,149.

Among single-proprietor entrants, both net farm income and family assistance tended to decline with increasing age. Entrants in the 16 to 23.9 age group had a mean net farm income of $3,814. The net farm income of those 24 to 33.9 years of age was $3,243. Entrants 34 years and older had a mean net farm income of $1,570. Smaller differences of the same kind also showed up for net farm income, excluding family assistance. These differences probably were related to the differences in acreage operated and in nonfarm employment. Gifts and inheritance of farming inputs declined from $815 for the youngest age group of single-proprietor entrants to $324 for the oldest age group. Undoubtedly, the differences in family assistance partly reflected the age-associated differences in need for assistance indicated by the difference in financial position at the time of entry.

Partner entrants tended to have higher incomes from farming than single-proprietor entrants. However, this was true largely because single-proprietor entrants tended to be older, and the older entrants had smaller incomes from farming. For entrants under 34 years of age, there was little difference between the net farm income of single-proprietor entrants and that of partner entrants. Older entrants were concentrated in the single-proprietor group, and they had smaller incomes from farming than younger entrants.

## Nonfarm income

During the first year of farming, beginning entrants and their families received incomes from sources other than farming averaging $3,030. Nearly 81 percent of this total was earned income from labor and property, and about 19 percent was gifts and inheritance of cash and nonfarm goods and services. Of the total earned income from farm and nonfarm sources, almost half came from nonfarm labor and property earnings (table 37).

Entrant labor earnings were the major source of earned income from nonfarm sources and contributed about 64 percent of the total. Wife employment at nonfarm jobs represented 14 percent, and entrant nonlabor income made up 18 percent. Nonlabor earnings of wives and income received by children contributed about 4 percent.

Total earned income from nonfarm sources increased consistently with increases in entrant age. Entrants under 24 years of age had a mean earned income from nonfarm sources of only $919. Those 24 to 33.9 years of age had an average level of $2,697, whereas entrants 34 years and older had an average earned income from nonfarm sources of $4,915. Differences in entrant's labor earnings and property earnings were the principal sources of this variation. On the average, entrants in the youngest age group received only $564 from nonfarm work and only $53

from other nonfarm sources, whereas entrants in the oldest age group received $3,109 from nonfarm work and $1,244 from other nonfarm sources. These differences reflected age-related differences in the allocation of labor between farm and nonfarm employments and in the ownership of nonfarm property. As noted earlier, older entrants had accumulated more nonfarm assets and had been involved more heavily in nonfarm employment before entering farming than younger entrants. This stronger nonfarm-income-earning orientation was maintained after entering farming. Since older entrants had a larger beginning net worth and since they operated smaller farms than younger entrants, more of their resources continued to earn incomes in nonfarm activities. In this sense, older entrants were more truly part-time farmers than were younger entrants. Age-associated differences in other components of nonfarm income were not large or consistent.

Single-proprietor entrants had larger earned incomes from nonfarm sources than did partner entrants. Again, most of the difference was the result of variation in the components representing entrant income. The earnings of wives and other family members were much the same for single-proprietor entrants and partner entrants. The larger earned income from nonfarm sources of single-proprietor entrants reflected the higher level of nonfarm income of older entrants and the greater concentration of older entrants in the single-proprietorship group. While age-associated differences in income were larger for single-proprietor entrants, similar differences also characterized the sample partner group.

## Nonfarm employment and income

In table 38, selected income attributes have been classified by entrant age and days of nonfarm work.

**Table 37. Income from sources other than farming, by business form and age.**

| | Single-proprietor entrants | | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sources | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total | Partner entrants | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Total |
| n | 52 | 63 | 38 | 153 | 33 | 73 | 74 | 39 | 186 |
| Entrant's nonfarm work | $ 617 | $1,712 | $3,118 | $1,689 | $1,126 | $ 564 | $1,800 | $3,109 | $1,589 |
| Wife's nonfarm work | 95 | 514 | 300 | 319 | 465 | 232 | 438 | 378 | 345 |
| Entrant's other nonfarm income | 48 | 398 | 1,277 | 497 | 148 | 53 | 386 | 1,244 | 435 |
| Other nonfarm income[a] | 90 | 86 | 189 | 113 | 14 | 70 | 73 | 184 | 95 |
| Total earned income from sources other than farming | 850 | 2,710 | 4,884 | 2,618 | 1,753 | 919 | 2,697 | 4,915 | 2,464 |
| Gifts and inheritance of cash and nonfarm goods | 513 | 296 | 1,420 | 649 | 183 | 474 | 267 | 1,383 | 566 |
| Total family income from all sources other than farming, including gifts and inheritance | 1,363 | 3,006 | 6,304 | 3,267 | 1,936 | 1,393 | 2,964 | 6,298 | 3,030 |

[a] Includes entrants' income from work on other farms, labor income earned by family members other than entrant and wife, and income of wife and other family members from nonfarm properties.

**Table 38. Selected income characteristics of beginning entrants, by age and days of nonfarm work.**

| | 16 to 23.9 years | | 24 to 33.9 years | | 34 years and over | | Total | |
|---|---|---|---|---|---|---|---|---|
| Income characteristics | Less than 60 days | More than 60 days | Less than 60 days | More than 60 days | Less than 60 days | More than 60 days | Less than 60 days | More than 60 days |
| | (n=48) | (n=24) | (n=34) | (n=40) | (n=14) | (n=23) | (n=96) | (n=87) |
| **Farm** | | | | | | | | |
| Total farm receipts | $9,667 | $7,795 | $11,208 | $7,518 | $7,131 | $6,323 | $9,843 | $7,279 |
| Total farm expenses | 5,581 | 4,174 | 7,484 | 4,518 | 4,527 | 5,322 | 6,101 | 4,636 |
| Net farm income, including gifts | 4,086 | 3,621 | 3,724 | 3,000 | 2,604 | 1,001 | 3,742 | 2,643 |
| Gifts of farm items | 806 | 851 | 534 | 465 | 690 | 114 | 693 | 479 |
| Net farm income, excluding gifts | 3,280 | 2,770 | 3,190 | 2,535 | 1,914 | 887 | 3,049 | 2,164 |
| **Nonfarm** | | | | | | | | |
| Entrant's nonfarm labor income | 130 | 1,455 | 258 | 3,110 | 277 | 4,843 | 197 | 3,112 |
| Wife's nonfarm labor income | 216 | 275 | 382 | 486 | 376 | 413 | 298 | 408 |
| Other nonfarm income | 116 | 145 | 251 | 634 | 654 | 2,023 | 242 | 866 |
| Gifts of cash and nonfarm goods | 556 | 204 | 374 | 176 | 3,833 | 13 | 969 | 141 |
| Nonfarm income, including gifts and inheritance | 1,018 | 2,079 | 1,265 | 4,406 | 5,140 | 7,292 | 1,706 | 4,527 |
| Nonfarm income, excluding gifts and inheritance | 462 | 1,875 | 891 | 4,230 | 1,307 | 7,279 | 737 | 4,386 |
| Total family income, including gifts and inheritance | 5,104 | 5,702 | 4,989 | 7,406 | 7,744 | 8,293 | 5,448 | 7,170 |
| Total family income, excluding gifts and inheritance | 3,742 | 4,647 | 4,081 | 6,765 | 3,221 | 8,166 | 3,786 | 6,551 |
| Total gifts and inheritance | 1,362 | 1,055 | 908 | 641 | 4,523 | 127 | 1,662 | 620 |

During the first year of farming, 52 percent of the beginning entrants spent less than 60 days and 48 percent spent 60 or more days at nonfarm work. There were some large income differences between those with little or no nonfarm employment and those with substantial nonfarm employment.

Entrants who spent less than 60 days at nonfarm work had a mean family income, including gifts and inheritance, of $5,448, whereas those with 60 or more days had an average total income of $7,170. The group with less than 60 days of nonfarm employment received family assistance averaging $1,662 and had an average earned family income of $3,786. On the other hand, the group with 60 or more days of nonfarm work received family assistance with a mean value of $620. Entrants in this group had an average earned family income of $6,551.

As might be expected, entrants with less than 60 days of nonfarm work had a larger net farm income and a smaller income from nonfarm sources than those with 60 or more days of nonfarm work. But the difference in net income from farming, including gifts of farm items ($1,099) was only 39 percent as large as the difference in income from nonfarm sources, so that entrants with substantial nonfarm employment had a much larger total income.

Even though entrants with less than 60 days of nonfarm employment received 2½ times more family assistance, this offset less than two-fifths of the difference in income from nonfarm sources. Almost all the difference in income from nonfarm sources was associated with variation in entrant nonfarm labor earnings. Entrants with less than 60 days of nonfarm work had nonfarm labor earnings of only $197, whereas those with 60 or more days had nonfarm labor earnings of $3,112.

Association between relative dependence on farm income and age is evident in table 38. Among entrants 16 to 23.9 years of age, two-thirds of the group worked less than 60 days at nonfarm jobs. But 46 percent of those 24 to 33.9 years of age spent less than 60 days at nonfarm work, and only 38 percent of those 34 years and over worked less than 60 days at nonfarm jobs. Income differences associated with nonfarm employment tended to be smaller for younger entrants than for older entrants. There were several reasons for this. Younger entrants who worked at nonfarm jobs 60 or more days spent less time at nonfarm work than did the older entrants who worked 60 or more days at nonfarm jobs. There also was evidence that the rate of earnings in nonfarm employment was lower for younger entrants than for older entrants. Differences in earned income from farming and gifts and inheritance of farming inputs were smaller for younger entrants than for older entrants. Undoubtedly, this was related to smaller differences in farm size among younger entrants, which, in turn, were associated with the smaller differences in amount of nonfarm work. Inheritance was a more important source of family assistance for older entrants than for younger entrants. The two cases of land inheritance were among older entrants with less than 60 days of nonfarm employment.

While income differences associated with nonfarm employment tended to be smaller for younger entrants, they still were fairly large. Among entrants 16 to 23.9 years of age, those with less than 60 days of nonfarm work had a total earned income of $3,742, whereas those with 60 or more days of nonfarm work had a total earned income of $4,647. Those with less than 60 days had only $510 more earned farm income, but they had $1,325 less labor earnings from entrant nonfarm employment than those with 60 or more days of nonfarm work (table 38).

A comparison between entrants who did no nonfarm work (n=63) and those who worked 115 or more days at nonfarm jobs (n=54) shows even more extreme differences. Earned income (gifts and inheritance excluded) from farming plus entrant's nonfarm labor income averaged only $3,230 for those with no nonfarm work, whereas it averaged $6,216 for those working 115 or more days at nonfarm jobs. Total family assistance, however, was nearly 4 times as large ($2,139 as compared with $560) for the entrants who were full-time farmers. Because of the difference in gifts and inheritance, the difference in total family income was reduced to about $2,100 ($5,935 as against $8,024).

In general, beginning entrants who combined farming with a heavy dose of nonfarm employment had higher incomes than those who were completely or heavily dependent on farming for income. The data suggest that there was a substantial disparity in the average earnings of labor on beginning entrant farms and the average earnings of labor in nonfarm jobs held by beginning entrants. Undoubtedly, most of the earned income could be attributed to labor. The level of earned income tended to be directly related to the share of labor devoted to nonfarm work, pointing to a higher average return to labor in nonfarm employment than in farming. The main reason seems to have been the greater relative scarcity of land and capital on farms operated by entrants who spent little or no time at nonfarm jobs. Although entrants who were full-time farmers operated larger acreages than those who devoted a large share of their labor to nonfarm work, it appears that the amount of land and capital was not enough more to make labor as productive on these units as on the units operated by entrants with heavy nonfarm work commitments. Studies of factor earnings in relation to factor opportunity costs on farms exhibiting differences in land and capital in relation to labor suggest that much larger quantities of land and capital would have been needed on beginning entrant farms under 1959-60 price and cost conditions if the labor earnings of a

Table 39. Changes in assets and liabilities and ending net worth statement of beginnings entrants for the first year of farming, by age and business form.

| Item | Age (years) | | | | | | Business form | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 n = 73 | | 24 to 33.9 n = 74 | | 34 and over n = 38 | | Single proprietorship n = 154 | | Partnership n = 31 | | Total n = 185 | |
| | Change | Ending | Change | Ending | Change | Ending | Change | Ending | Change | Ending | Change | Ending |
| | (dollars) | | | | | | | | | | | |
| Farm assets | | | | | | | | | | | | |
| Crops | 1,371 | 1,516 | 1,659 | 1,782 | 1,066 | 1,132 | 1,317 | 1,451 | 1,925 | 1,973 | 1,423 | 1,543 |
| Livestock | 2,411 | 3,440 | 2,794 | 3,482 | 2,192 | 2,745 | 2,388 | 3,178 | 3,172 | 3,939 | 2,520 | 3,314 |
| Machinery and equipment | 1,345 | 2,526 | 1,765 | 2,961 | 1,753 | 2,437 | 1,390 | 2,429 | 2,600 | 3,845 | 1,598 | 2,682 |
| Land | 513 | 1,146 | 2,632 | 4,805 | 5,213 | 14,060 | 2,648 | 5,497 | 873 | 4,182 | 2,327 | 5,263 |
| Total | 5,640 | 8,628 | 8,850 | 13,030 | 10,224 | 20,374 | 7,743 | 12,555 | 8,570 | 13,939 | 7,868 | 12,802 |
| Nonfarm assets | | | | | | | | | | | | |
| Real estate | 0 | 0 | —501 | 1,076 | —43 | 7,410 | —255 | 2,329 | —03 | 215 | —210 | 1,952 |
| Cash | —50 | 422 | —810 | 709 | —727 | 512 | —438 | 570 | —751 | 484 | —494 | 555 |
| Household goods | 267 | 952 | 345 | 1,631 | 115 | 1,989 | 202 | 1,495 | 564 | 1,170 | 267 | 1,437 |
| Other | —77 | 916 | —329 | 1,203 | —1,295 | 5,210 | —449 | 1,991 | —336 | 1,552 | —429 | 1,913 |
| Total | 140 | 2,290 | —1,295 | 4,619 | —1,950 | 15,121 | —940 | 6,385 | —526 | 3,421 | —866 | 5,857 |
| Total assets | 5,779 | 10,917 | 7,556 | 17,650 | 8,274 | 35,495 | 6,805 | 18,940 | 8,044 | 17,361 | 7,001 | 18,658 |
| Liabilities | | | | | | | | | | | | |
| Real estate mortgage | 493 | 1,020 | 1,438 | 2,874 | 2,666 | 6,350 | 1,456 | 2,865 | 682 | 2,818 | 1,317 | 2,856 |
| Chattel mortgage | 978 | 1,345 | 1,234 | 1,574 | 1,023 | 1,297 | 1,098 | 1,499 | 1,052 | 1,094 | 1,090 | 1,427 |
| Other notes | 1,472 | 2,164 | 1,918 | 2,676 | 1,066 | 1,616 | 1,211 | 1,868 | 3,936 | 4,042 | 1,567 | 2,256 |
| Other debt | 391 | 462 | 449 | 555 | 39 | 368 | 263 | 408 | —30 | 809 | 342 | 480 |
| Total liabilities | 3,334 | 4,991 | 5,039 | 7,679 | 4,795 | 9,631 | 4,028 | 6,640 | 5,640 | 8,763 | 4,316 | 7,019 |
| Net worth | 2,445 | 5,926 | 2,517 | 9,971 | 3,479 | 25,863 | 2,777 | 12,299 | 2,403 | 8,597 | 2,688 | 11,639 |

full-time entrant operator were to compare favorably with earnings in nonfarm employment.[21]

### Change in net worth

Most beginning entrants experienced an increase in net worth during the first year of farming. For the group as a whole, the mean addition to net worth amounted to nearly $2,700 (table 39). Typically, increases in net worth were accompanied by large positive changes in both assets and liabilities. On the average, total assets rose by $7,001, and total liabilities increased by about $4,300. There also were large changes in the make-up of total assets. Whereas farm assets increased by $7,868, cash and nonfarm assets declined by almost $900. Because of large borrowings to purchase farming inputs, nearly all the increase in total liabilities was associated with the rise in farm assets. Of the mean increase in farm assets of $7,900, about 55 percent reflected an increase in liabilities, 34 percent reflected savings out of current income, and 11 percent reflected conversion of cash and nonfarm assets. In many instances, large increases in farm assets were associated with heavy dependence on nonfarm sources of income and/or low levels of current consumption. Family assistance involving assets and liabilities averaged about $650 per entrant. This compares with total family assistance of over $1,100 per entrant.

About three-fifths of the group experienced changes in net worth less favorable than the mean increase of $2,700. Nearly 15 percent ended the first year of farming with a smaller net worth than they had at the beginning. Roughly the same proportion had increases in net worth of less than $1,000. On the other hand, about 10 percent experienced increases of $6,000 or more. But one-sixth of the entrants in this group received inheritances valued at more than $6,000.

Apparently older entrants had a larger net worth increase than younger entrants. Sample entrants 34 years and older added over $1,000 more to their net worth than those under 24 years of age. The older group also had a substantially higher income. Although single-proprietor entrants were older and had a somewhat higher income than partner entrants, there was only a small difference in the net worth change of the two sample groups. Partner entrants had a mean increase in net worth of about $2,400, whereas single-proprietor entrants had an increase of nearly $2,780. Partner entrants tended to be more heavily committed to farming (less nonfarm employment), and they increased both their farming assets and liabilities more than single-proprietor entrants (table 39).

### Income, savings and apparent consumption

Table 40 brings together some of the data relating to the economic welfare of the beginning-entrant group. Savings were defined as the addition to net worth less the increase in the inventory value of household goods. Thus, expenditures on durable con-

[21] Saupe and Kaldor, op. cit.

Table 40. Income, savings and apparent consumption of beginning-entrant households, by age of entrant and business form.

| Item | Entrant age | | | Business form | | Total |
|---|---|---|---|---|---|---|
| | 16 to 23.9 years | 24 to 33.9 years | 34 years and over | Single proprietor | Partnerships | |
| Household income[a] | $5,177 | $6,252 | $7,874 | $6,290 | $5,684 | $6,182 |
| Savings[b] | 2,178 | 2,171 | 3,364 | 2,575 | 1,839 | 2,421 |
| Apparent consumption | 2,999 | 4.081 | 4,510 | 3,715 | 3,845 | 3,761 |
| Household size (persons) | 2.1 | 3.4 | 4.1 | 3.3 | 2.1 | 3.1 |
| Apparent consumption per household member | 1,428 | 1,200 | 1,100 | 1,126 | 1,831 | 1,213 |

[a] Includes the value of family assistance.
[b] Defined as the increase in net worth adjusted for change in the inventory value of household goods.

sumer goods were counted as consumption even though they had the effect of increasing net worth. Apparent consumption was estimated by subtracting adjusted net worth (savings) from family income. The estimates are presented on both a household and per-household-member basis.

The results show that apparent consumption per household member during the initial year of farming averaged about $1,200 for beginning entrants as a group. On a household basis, the mean value of apparent consumption was about $3,760. Considering the level of income, beginning entrants devoted an unusually high proportion to savings. With a mean income of $6,180, they had an average level of savings of $2,400. Apparently, beginning entrants' families allocated about two-fifths of their income to savings and about three-fifths to current consumption.

Such a high average propensity to save would occur quite infrequently among nonfarm households at this income level. It is likely that the propensity to save among beginning entrants was greater than among Iowa farmers generally, even though farm people usually tend to have a greater propensity to save than nonfarm people. Beginning-entrant families probably had a heavier debt load and were more limited on operating capital than farm families generally. Thus, beginning-entrant families were under greater pressure to forego current consumption and to build net worth. While most beginning entrants made substantial savings during the first year of farming, this was often achieved by severely limiting consumption spending and making a heavy sacrifice in terms of the current level of living.

On a household basis, single-proprietor entrants had higher incomes and savings than did partner entrants. But there was little difference in apparent consumption. Since partner-entrant households were substantially smaller than those of single-proprietor entrants, apparent consumption per household member was much larger for partner-entrant households. Undoubtedly, the pressure to reduce debt and accumulate operating capital was less among partner entrants than among single-proprietor entrants. Partner entrants were usually farming with their fathers on units that were more fully supplied with operating capital. Thus, they could accumulate net worth at a slower pace without adversely affecting current returns for their labor. In addition, partner entrants, being more closely associated with their families and having families with more net worth, might expect more financial help in case of need. Therefore, they would have less reason for achieving as rapid a reduction in personal debt as would single-proprietor entrants.

There was some tendency for income, savings and consumption levels to be associated with entrant age. On a household basis, income, savings and consumption levels tended to rise with increasing age. Household size also was related directly to age. Since household size tended to increase more rapidly with age than household consumption, consumption per household member tended to be inversely associated with entrant age. Consumption spending per household member for entrants 16 to 23.9 years of age was estimated at $1,428 compared with $1,100 for entrants 34 years and over. The higher level of consumption spending per household member by younger entrants does not necessarily mean that they enjoyed a higher level of living. Undoubtedly, older entrants had accumulated more durable consumer goods than younger entrants, so the flow of consumer goods services enjoyed may have been greater on a household-member basis for older entrants.

It appears that the consumption and savings behavior of beginning entrant households was associated with the amount of entrant nonfarm employment. Households with entrants employed 60 or more days at nonfarm work had a mean income of nearly $7,200, whereas those with entrants employed less than 60 days at nonfarm work had an average income of about $5,450. On the basis of this difference in income, households with the heavier entrant nonfarm employment would be expected to save more than those with little or no entrant nonfarm employment. Yet, the latter group saved over $500 more than the former group (table 41). Households with 60 or more days of entrant nonfarm work saved about 34 percent of household income, whereas those with less than 60 days of entrant nonfarm work saved nearly 56 percent of a much smaller household income. Moreover, the differences apparently were independent of entrant age. Within each age group, income and con-

sumption spending levels were higher and savings levels were lower for entrants with 60 or more days of nonfarm work than for those with under 60 days of nonfarm employment.

One possible explanation for the differences in propensity to save might be a difference in "consumption needs" as reflected in household size. While beginning entrants with 60 days or more of nonfarm work had larger households (mean of 3.5 members) than those with under 60 days of nonfarm employment (mean of 2.6 members), the difference in household size was less than proportional to the difference in household consumption spending. On a household-member basis, income levels were almost identical for both groups, but entrants with under 60 days of nonfarm work saved 73 percent more and consumed 31 percent less income than those with 60 or more days of nonfarm employment. Although the difference in household size can explain a part of the difference in saving behavior, other factors also were involved. This is pointed up in the case of the 34 years and over age group. In this group, entrants with less than 60 days of nonfarm work had the same mean household size as those with 60 or more days of nonfarm work. Although entrants with under 60 days of nonfarm work had about 6 percent less income, they saved over two-thirds more and spent about 55 percent less on consumption than those with 60 or more days of nonfarm employment (table 41).

Beginning entrants with heavy nonfarm work commitments seemed to have consumption and savings preferences that were more similar to those of nonfarm people than the entrants with little or no nonfarm employment. Even though many in the former group were born and raised on farms, it is likely that their preferences were strongly influenced by the urban environment in which they spent a substantial part of their work time. Many of these entrants probably expected to continue with a combination of farming and nonfarm employment, and so they may have been under less pressure to accumulate the necessary operating capital for a full-time farming operation.

## SELECTED VIEWS OF BEGINNING ENTRANTS

Each entrant was asked a series of questions relating to his views about income opportunities in farming, government programs for beginning farmers and occupational advice for a farm boy graduating from high school. Responses were classified by entrant age and family income level and are presented in tables 42 through 48.

The first question was: "Based on your experience up to now, would you say that the rewards from farming have been greater, about the same or less than what you expected when you decided to farm?" Of the 190 entrants responding, 13 percent stated that rewards had been greater than expected, 34 percent said that rewards had been less than expected, and 53 percent indicated that rewards had been about the same as expected (table 42). Apparently about half of the entrants erred in their expectations. Unfavorable errors (rewards less than expected) were over 2½ times as numerous as favorable errors (rewards greater than expected). The pattern of response appeared independent of both entrant age and the level

**Table 41. Income, savings and apparent consumption of beginning-entrant households, by entrant age and days of nonfarm employment.**

| Item | 16 to 23.9 years | | 24 to 33.9 years | | 34 years and over | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Under 60 days | 60 days and over | Under 60 days | 60 days and over | Under 60 days | 60 days and over | Under 60 days | 60 days and over |
| Household income | $5,104 | $5,702 | $4,986 | $7,406 | $7,744 | $8,293 | $5,448 | $7,170 |
| Savings | 2,828 | 2,250 | 2,738 | 2,328 | 4,692 | 2,770 | 3,066 | 2,427 |
| Apparent consumption | 2,276 | 3,452 | 2,248 | 5,078 | 3,052 | 5,523 | 2,382 | 4,743 |
| Household size (number) | 1.9 | 2.1 | 2.9 | 3.9 | 4.2 | 4.2 | 2.6 | 3.5 |
| Apparent consumption per household member | 1,198 | 1,643 | 775 | 1,302 | 727 | 1,315 | 916 | 1,355 |

**Table 42. Response of beginning entrants to the question, "Based on your experience up to now, would you say that the rewards from farming have been greater, about the same or less than what you expected when you decided to farm?", by age and income experience first year of farming.**

| Age and family income level | Response | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Greater | | Less | | Same | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Age | | | | | | | | |
| 16 to 23.9 years | 13 | 17.3 | 25 | 33.3 | 37 | 49.3 | 75 | 100.0 |
| 24 to 33.9 years | 8 | 10.7 | 23 | 30.7 | 44 | 58.6 | 75 | 100.0 |
| 34 years and over | 4 | 10.0 | 16 | 40.0 | 20 | 50.0 | 40 | 100.0 |
| Family income level | | | | | | | | |
| Under $5,100 | 12 | 13.2 | 29 | 31.9 | 50 | 54.9 | 91 | 100.0 |
| $5,100 and over | 11 | 12.0 | 31 | 33.7 | 50 | 54.3 | 92 | 100.0 |
| Total | 25 | 13.2 | 64 | 33.6 | 101 | 53.2 | 190[a] | 100.0 |

[a] Since there were seven cases of incomplete income information, the total n for family income was 183.

of family income during the first year of farming.

Even if expectations had been more in line with realizations, the effect on entry decisions apparently would not have been large. When asked, "If you had known when you started farming what you know today, would you still have decided to farm?", over 80 percent of the group gave an affirmative answer (table 43). Only 13 percent indicated that they would have decided not to farm. About 7 percent said they did not know what they would have done. For some of the entrants with unfavorable errors of expectation, the differences apparently were not sufficient to suggest a mistaken decision. There was some tendency for the proportion of affirmative replies to be smaller and for the proportion of negative and do not know replies to be larger for younger entrants than for older entrants.

Some dissatisfaction with farming, however, was evident in the responses to the question, "Since you started farming, have you given any thought to quitting and getting a nonfarm job?" Nearly 30 percent of the entrants reported that they had given thought to quitting farming. A significantly higher proportion of entrants with family incomes under $5,100 had given thought to quitting than of those with family incomes of $5,100 and over (37 percent as against 21 percent). Evidently younger entrants had given thought to quitting more frequently than older entrants (table 44). This is consistent with the finding on age-associated differences in income.

What did beginning entrants consider the biggest obstacle to increasing their income from farming? Nearly half of the group (49 percent) indicated that the biggest obstacle was low prices and/or high costs. Almost 28 percent reported inadequate land, capital, or both. About 10 percent referred to the "general farm or economic situation," which probably involved the cost-price situation. Nearly 7 percent mentioned crop and livestock production problems, and 6 percent gave miscellaneous obstacles. Only small differences characterized the sample age and income groupings (table 45).

Comparatively few beginning entrants were expecting harder times in farming. When asked, "Looking ahead for the next 20 years, do you expect the income-earning opportunity in farming to increase, stay about the same as now or decrease?", only 15 percent stated that they expected it to decrease. About 52 percent expected it to increase, whereas 33 percent expected it to stay about the same as now. Although the pattern of response showed no consistent relationship with entrant age, a significantly smaller proportion of entrants with family incomes under $5,100 than of those with family incomes of $5,100 and over expected income earning opportunities to increase (table 46).

A majority of the entrants interviewed favored special government programs for beginning farmers. When asked, "Do you think the government should undertake special programs to help young people get

**Table 43. Response of beginning entrants to the question, "If you had known when you started farming what you know today, would you still have decided to farm?", by age and income experience first year of farming.**

| Age and family income level | Response | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Yes | | No | | Do not know | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Age | | | | | | | | |
| 16 to 23.9 years | 57 | 76.0 | 10 | 13.3 | 8 | 10.7 | 75 | 100.0 |
| 24 to 33.9 years | 61 | 81.4 | 10 | 13.3 | 4 | 5.3 | 75 | 100.0 |
| 34 years and over | 35 | 87.5 | 4 | 10.0 | 1 | 2.5 | 40 | 100.0 |
| Family income level | | | | | | | | |
| Under $5,100 | 71 | 78.0 | 13 | 14.3 | 7 | 7.7 | 91 | 100.0 |
| $5,100 and over | 78 | 84.8 | 8 | 8.7 | 6 | 6.5 | 92 | 100.0 |
| Total | 153 | 80.6 | 24 | 12.6 | 13 | 6.8 | 190[a] | 100.0 |

[a] Since there were seven cases of incomplete income information, the total n for family income was 183.

**Table 44. Response of beginning entrants to the question, "Since you started farming, have you given any thought to quitting and getting a nonfarm job?", by age and income experience first year of farming.**

| Age and family income level | Response | | | | | |
|---|---|---|---|---|---|---|
| | Yes | | No | | Total | |
| | Number | Percent | Number | Percent | Number | Percent |
| Age | | | | | | |
| 16 to 23.9 years | 25 | 33.3 | 50 | 66.7 | 75 | 100.0 |
| 24 to 33.9 years | 23 | 30.7 | 52 | 69.3 | 75 | 100.0 |
| 34 years and over | 8 | 20.0 | 32 | 80.0 | 40 | 100.0 |
| Family income level[a] | | | | | | |
| Under $5,100 | 34 | 37.4 | 57 | 62.6 | 91 | 100.0 |
| $5,100 and over | 19 | 20.6 | 73 | 79.4 | 92 | 100.0 |
| Total | 56 | 29.5 | 134 | 70.5 | 190[b] | 100.0 |

[a] Differences by income significant at the 2-percent level.
[b] Since there were seven cases of incomplete income information, the total n for the family income was 183.

Table 45. What beginning entrants considered the biggest obstacle to increasing their income from farming, by age and income experience first year of farming.

| Obstacles | Age (years) | | | | | | Family income level | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | Under $5,100 | | $5,100 and over | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Low prices and/or high costs | 35 | 47.3 | 40 | 54.0 | 17 | 42.5 | 41 | 45.0 | 45 | 50.0 | 92 | 48.9 |
| Inadequate land and/or capital | 19 | 25.7 | 22 | 29.7 | 11 | 27.5 | 30 | 33.0 | 22 | 24.4 | 52 | 27.7 |
| Crop and livestock problems | 8 | 10.8 | 1 | 1.4 | 4 | 10.0 | 3 | 3.3 | 10 | 11.1 | 13 | 6.9 |
| General farm or economic situation | 7 | 9.5 | 8 | 10.8 | 4 | 10.0 | 13 | 14.3 | 5 | 5.6 | 19 | 10.1 |
| Other | 5 | 6.7 | 3 | 4.1 | 4 | 10.0 | 4 | 4.4 | 8 | 8.9 | 12 | 6.4 |
| Total | 74 | 100.0 | 74 | 100.0 | 40 | 100.0 | 91 | 100.0 | 90 | 100.0 | 188 | 100.0 |

Table 46. Response of beginning entrants to the question, "Looking ahead for the next 20 years, do you expect the income-earning opportunity in farming to increase, stay about the same as now or decrease?", by age and income experience first year of farming.

| Age and family income level | Response | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Increase | | Decrease | | About same | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Age | | | | | | | | |
| 16 to 23.9 years | 39 | 52.0 | 11 | 14.7 | 25 | 33.3 | 75 | 100.0 |
| 24 to 33.9 years | 42 | 56.7 | 11 | 14.9 | 21 | 28.4 | 74 | 100.0 |
| 34 years and over | 17 | 42.5 | 7 | 17.5 | 16 | 40.0 | 40 | 100.0 |
| Family income level[a] | | | | | | | | |
| Under $5,100 | 40 | 44.5 | 19 | 21.1 | 31 | 34.4 | 90 | 100.0 |
| $5,100 and over | 56 | 60.9 | 8 | 8.7 | 28 | 30.4 | 92 | 100.0 |
| Total | 98 | 51.9 | 29 | 15.3 | 62 | 32.8 | 189[b] | 100.0 |

[a] Differences by family income significant at the 5-percent level.

[b] Since there were seven cases of incomplete income information, the total n for family income was 183.

Table 47. Response of beginning entrants to the question, "Do you think the government should undertake some special programs to help young people get started in farming?", by age and income experience first year of farming.

| Age and family income level | Response | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Yes | | No | | Do not know | | Total | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Age | | | | | | | | |
| 16 to 23.9 years | 44 | 58.6 | 20 | 26.7 | 11 | 14.7 | 75 | 100.0 |
| 24 to 33.9 years | 42 | 56.0 | 23 | 30.7 | 10 | 13.3 | 75 | 100.0 |
| 34 years and over | 25 | 62.5 | 10 | 25.0 | 5 | 12.5 | 40 | 100.0 |
| Family income level[a] | | | | | | | | |
| Under $5,100 | 58 | 63.7 | 18 | 19.8 | 15 | 16.5 | 91 | 100.0 |
| $5,100 and over | 49 | 53.2 | 33 | 35.9 | 10 | 10.9 | 92 | 100.0 |
| Total | 111 | 58.4 | 53 | 27.9 | 26 | 13.7 | 190[b] | 100.0 |

[a] Differences by family income level significant at the 5-percent level.

[b] Since there were seven cases of incomplete income information, the total n for family income was 183.

started in farming?", 58 percent responded with an affirmative answer, 28 percent gave a negative reply, and 14 percent said they did not know. Even though the question related to special programs for young people, the pattern of response of older entrants was not significantly different from that of younger entrants. An affirmative reply was given by 62 percent of the entrants 34 years and older and by 59 percent of those 16 to 23.9 years of age. There was a significant difference associated with family income levels, however. Special programs to help beginning farmers get started in farming were favored by a higher proportion of entrants with family incomes under $5,100 than of those with family incomes of $5,100 and more (table 47).

In a final question, beginning entrants were asked what advice they would offer a typical farm boy immediately upon graduating from high school. Several possibilities and an open-end opportunity were listed on a card that was handed to each respondent. The following possibilities were included: get more education and training for farming; get more education and training for nonfarm work; start farming on own; start farming with father; get a nonfarm job; hire out as a nonfarm worker and other to be specified by respondent. The results are presented in table 48.

Table 48. Advice beginning entrants would offer a typical farm boy immediately upon graduating from high school, by age and income experience first year of farming.[a]

| Advice | Age (years) | | | | | | Family income level | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16 to 23.9 | | 24 to 33.9 | | 34 and over | | Under $5,100 | | $5,100 and over | | Total | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Get more education and training for farming | 11 | 14.7 | 19 | 25.4 | 11 | 27.5 | 15 | 16.5 | 26 | 28.2 | 41 | 21.6 |
| Get more education and training for nonfarm work .... | 18 | 24.0 | 16 | 21.3 | 4 | 10.0 | 19 | 20.9 | 16 | 17.4 | 38 | 20.0 |
| Start farming on own. | 2 | 2.7 | 1 | 1.3 | 4 | 10.0 | 6 | 6.6 | 1 | 1.1 | 7 | 3.7 |
| Start farming with father ..... | 32 | 42.6 | 24 | 32.0 | 14 | 35.0 | 32 | 35.1 | 34 | 37.0 | 70 | 36.7 |
| Get a nonfarm job.... | 5 | 6.7 | 4 | 5.3 | 1 | 2.5 | 8 | 8.8 | 2 | 2.2 | 10 | 5.3 |
| Hire out as a farm worker ..... | 3 | 4.0 | 6 | 8.0 | 5 | 12.5 | 7 | 7.7 | 7 | 7.6 | 14 | 7.4 |
| Other ..... | 4 | 5.3 | 5 | 6.7 | 1 | 2.5 | 4 | 4.4 | 6 | 6.5 | 10 | 5.3 |
| Total ..... | 75 | 100.0 | 75 | 100.0 | 40 | 100.0 | 91 | 100.0 | 92 | 100.0 | 190 | 100.0 |

[a] The specific question was as follows: "What would be your advice to a typical farm boy immediately upon graduating from high school in 1961?" A card was handed to the respondent listing the possibilities indicated above and an open-end alternative to be specified. The respondent was asked to check only one.

Nearly 37 percent of the group suggested that the typical farm boy just out of high school "start farming with his father." This advice was given more frequently than any other. "Get more enducation and training for farming" was offered by 22 percent, and "get more education and training for nonfarm work" was indicated by 20 percent. About 7 percent suggested that the boy should "hire out as a farm worker," 5 percent offered the advice "get a nonfarm job," and 4 percent recommended that he should "start farming on his own." Other suggestions were given by another 5 percent.

What these results mean is not entirely clear. In general, they convey the impression that beginning entrants were strongly in favor of farm boys making a career of farming. Over 70 percent of the group offered advice that was oriented toward entry into farming with or without additional education and training. The percentage was substantially higher for older entrants (34 years and over) than for younger entrants (16 to 23.9 years). It was somewhat larger for entrants with family incomes of $5,100 or more than for those with family incomes under $5,100. The higher percentage for older entrants is a bit puzzling since they were much more dependent on nonfarm sources of income than were younger entrants. Entrants 34 years and over obtained only about one-fifth of family income from farming.